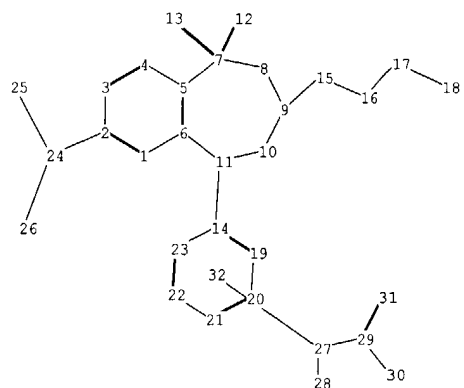
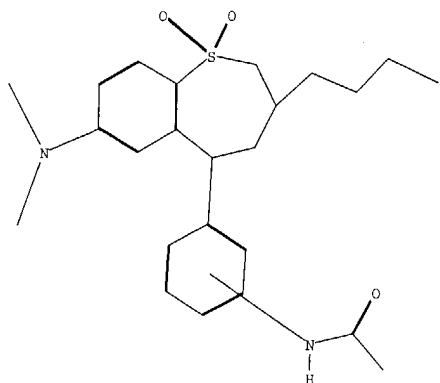


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3	0	514/18 and 1,-benzothiepine	USPAT; US-PGPUB; EPO; JPO; DERWENT	2004/08/25 12:06
4	2	514/18 and 1,4-benzothiepine	USPAT; US-PGPUB; EPO; JPO; DERWENT	2004/08/25 12:07
5	2732	514/19	USPAT; US-PGPUB; EPO; JPO; DERWENT	2004/08/25 12:07
6	2	514/19 and 1,4-benzothiepine	USPAT; US-PGPUB; EPO; JPO; DERWENT	2004/08/25 12:08
7	2779	514/23	USPAT; US-PGPUB; EPO; JPO; DERWENT	2004/08/25 12:07
8	1	514/23 and 1,4-benzothiepine	USPAT; US-PGPUB; EPO; JPO; DERWENT	2004/08/25 12:08
9	2319	530/330	USPAT; US-PGPUB; EPO; JPO; DERWENT	2004/08/25 12:08
10	2	530/330 and 1,4-benzothiepine	USPAT; US-PGPUB; EPO; JPO; DERWENT	2004/08/25 12:09
11	2184	530/331	USPAT; US-PGPUB; EPO; JPO; DERWENT	2004/08/25 12:08
12	2	530/331 and 1,4-benzothiepine	USPAT; US-PGPUB; EPO; JPO; DERWENT	2004/08/25 12:09
13	773	536/17.2	USPAT; US-PGPUB; EPO; JPO; DERWENT	2004/08/25 12:09
14	1	536/17.2 and 1,4-benzothiepine	USPAT; US-PGPUB; EPO; JPO; DERWENT	2004/08/25 12:10
15	2	1,4-benzothiepine	USPAT; US-PGPUB; EPO; JPO; DERWENT	2004/08/25 12:10
16	2	1,4-benzothiepine ADJ 1,1-dioxide	USPAT; US-PGPUB; EPO; JPO; DERWENT	2004/08/25 12:11

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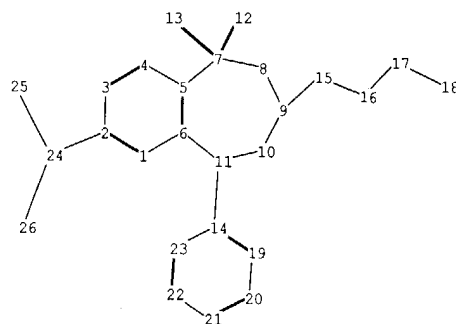
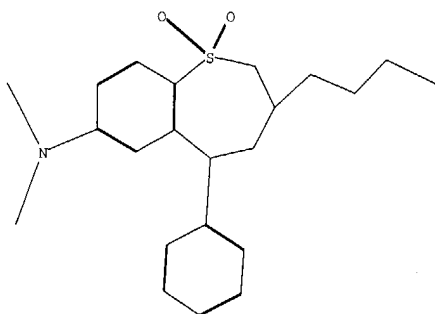
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  29-31
ring bonds :
  1-2 1-6 2-3 3-4 4-5 5-6 5-7 6-11 7-8 8-9 9-10 10-11 14-19 14-23 19-20
  20-21 21-22 22-23
exact/norm bonds :
  2-24 5-7 6-11 7-8 7-12 7-13 8-9 9-10 10-11 24-25 24-26 27-29 29-31
exact bonds :
  9-15 11-14 15-16 16-17 17-18 27-28 29-30
normalized bonds :
  1-2 1-6 2-3 3-4 4-5 5-6 14-19 14-23 19-20 20-21 21-22 22-23

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Match level :
1:Atom 2:Atom 3:Atom 4:Atom 5:Atom 6:Atom 7:Atom 8:Atom 9:Atom 10:Atom 11:Atom
12:CLASS 13:CLASS 14:Atom 15:CLASS 16:CLASS 17:CLASS 18:CLASS 19:Atom 20:Atom
21:Atom 22:Atom 23:Atom 24:CLASS 25:CLASS 26:CLASS 27:CLASS 28:CLASS 29:CLASS
30:CLASS 31:CLASS 32:CLASS

```



chain nodes :

12 13 15 16 17 18 24 25 26

ring nodes :

1 2 3 4 5 6 7 8 9 10 11 14 19 20 21 22 23

chain bonds :

2-24 7-12 7-13 9-15 11-14 15-16 16-17 17-18 24-25 24-26

ring bonds :

1-2 1-6 2-3 3-4 4-5 5-6 5-7 6-11 7-8 8-9 9-10 10-11 14-19 14-23 19-20
20-21 21-22 22-23

exact/norm bonds :

2-24 5-7 6-11 7-8 7-12 7-13 8-9 9-10 10-11 24-25 24-26

exact bonds :

9-15 11-14 15-16 16-17 17-18

normalized bonds :

1-2 1-6 2-3 3-4 4-5 5-6 14-19 14-23 19-20 20-21 21-22 22-23

Match level :

1:Atom 2:Atom 3:Atom 4:Atom 5:Atom 6:Atom 7:Atom 8:Atom 9:Atom 10:Atom 11:Atom
12:CLASS 13:CLASS 14:Atom 15:CLASS 16:CLASS 17:CLASS 18:CLASS 19:Atom 20:Atom
21:Atom 22:Atom 23:Atom 24:CLASS 25:CLASS 26:CLASS

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NEWS 4 May 12 Polymer links for the POLYLINK command completed in REGISTRY
NEWS 5 May 27 New UPM (Update Code Maximum) field for more efficient patent
SDIs in CPlus
NEWS 6 May 27 CPlus super roles and document types searchable in REGISTRY
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and WATER from CSA now available on STN(R)
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fields
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MACINTOSH VERSION IS V6.0c(ENG) AND V6.0Jc(JP),
AND CURRENT DISCOVER FILE IS DATED 11 AUGUST 2004
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FILE 'HOME' ENTERED AT 16:29:25 ON 25 AUG 2004

=> file reg		
COST IN U.S. DOLLARS	SINCE FILE	TOTAL
	ENTRY	SESSION
FULL ESTIMATED COST	0.21	0.21

FILE 'REGISTRY' ENTERED AT 16:30:00 ON 25 AUG 2004
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STRUCTURE FILE UPDATES: 24 AUG 2004 HIGHEST RN 732209-96-0

DICTIONARY FILE UPDATES: 24 AUG 2004 HIGHEST RN 732209-96-0

TSCA INFORMATION NOW CURRENT THROUGH MAY 21, 2004

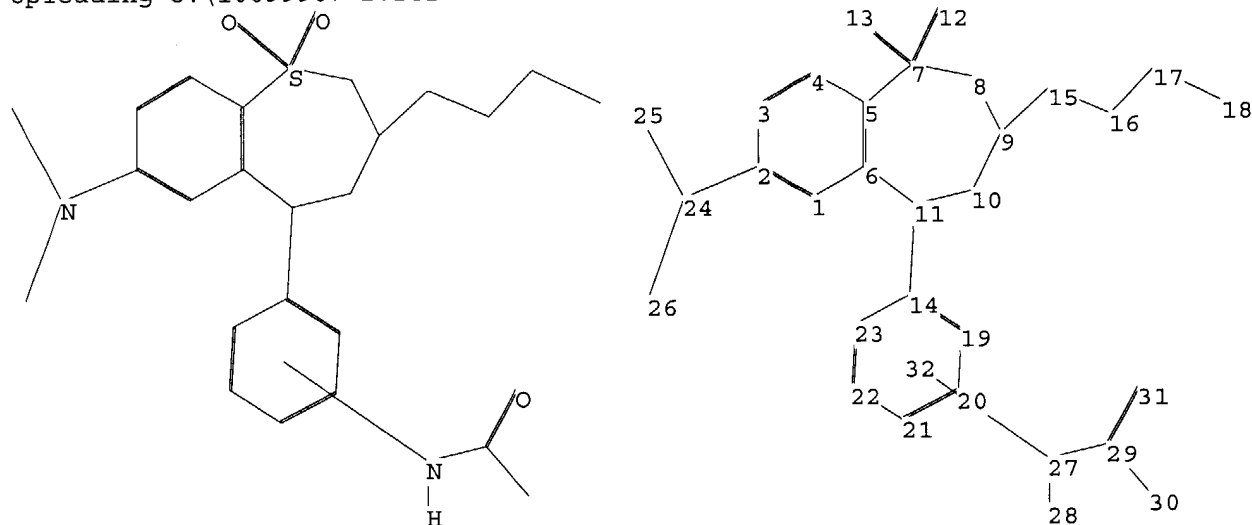
Please note that search-term pricing does apply when
conducting SmartSELECT searches.

Crossover limits have been increased. See HELP CROSSOVER for details.

Experimental and calculated property data are now available. For more
information enter HELP PROP at an arrow prompt in the file or refer
to the file summary sheet on the web at:
<http://www.cas.org/ONLINE/DBSS/registryss.html>

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Uploading c:\10699967-2.str



chain nodes :

12 13 15 16 17 18 24 25 26 27 28 29 30 31

ring nodes :

1 2 3 4 5 6 7 8 9 10 11 14 19 20 21 22 23

chain bonds :

2-24 7-12 7-13 9-15 11-14 15-16 16-17 17-18 24-25 24-26 27-28 27-29

29-30

29-31

ring bonds :

1-2 1-6 2-3 3-4 4-5 5-6 5-7 6-11 7-8 8-9 9-10 10-11 14-19 14-23 19-20

20-21 21-22 22-23

exact/norm bonds :

2-24 5-7 6-11 7-8 7-12 7-13 8-9 9-10 10-11 24-25 24-26 27-29 29-31

exact bonds :

9-15 11-14 15-16 16-17 17-18 27-28 29-30

normalized bonds :

1-2 1-6 2-3 3-4 4-5 5-6 14-19 14-23 19-20 20-21 21-22 22-23

Match level :

1:Atom 2:Atom 3:Atom 4:Atom 5:Atom 6:Atom 7:Atom 8:Atom 9:Atom 10:Atom

11:Atom 12:CLASS 13:CLASS 14:Atom 15:CLASS 16:CLASS 17:CLASS 18:CLASS

19:Atom 20:Atom 21:Atom

22:Atom 23:Atom 24:CLASS 25:CLASS 26:CLASS 27:CLASS 28:CLASS 29:CLASS

30:CLASS 31:CLASS

32:CLASS

L1 STRUCTURE UPLOADED

=> d l1

L1 HAS NO ANSWERS

L1 STR

* STRUCTURE DIAGRAM TOO LARGE FOR DISPLAY - AVAILABLE VIA OFFLINE PRINT *

Structure attributes must be viewed using STN Express query preparation.

=> s l1 sss sam

SAMPLE SEARCH INITIATED 16:30:28 FILE 'REGISTRY'

SAMPLE SCREEN SEARCH COMPLETED - 38 TO ITERATE

100.0% PROCESSED 38 ITERATIONS

3 ANSWERS

SEARCH TIME: 00.00.01

FULL FILE PROJECTIONS: ONLINE **COMPLETE**

BATCH **COMPLETE**

PROJECTED ITERATIONS: 391 TO 1129

PROJECTED ANSWERS: 3 TO 162

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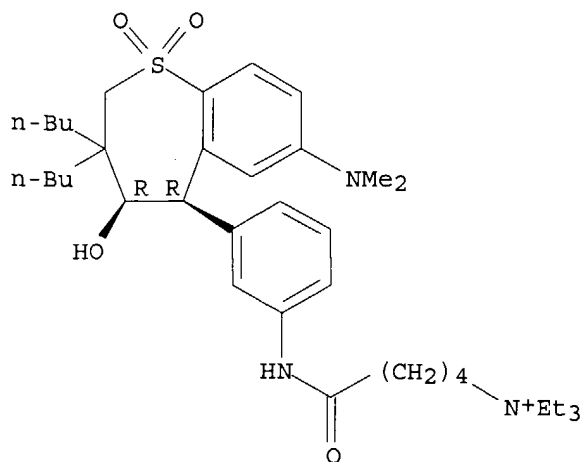
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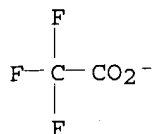
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CM 1

Relative stereochemistry.

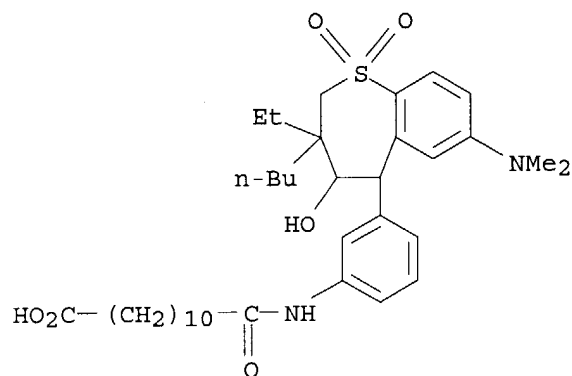


CM 2



HOW MANY MORE ANSWERS DO YOU WISH TO SCAN? (1):1

L2 3 ANSWERS REGISTRY COPYRIGHT 2004 ACS on STN
 IN Dodecanoic acid, 12-[[3-[3-butyl-7-(dimethylamino)-3-ethyl-2,3,4,5-tetrahydro-4-hydroxy-1,1-dioxido-1-benzothiepin-5-yl]phenyl]amino]-12-oxo-(9CI)
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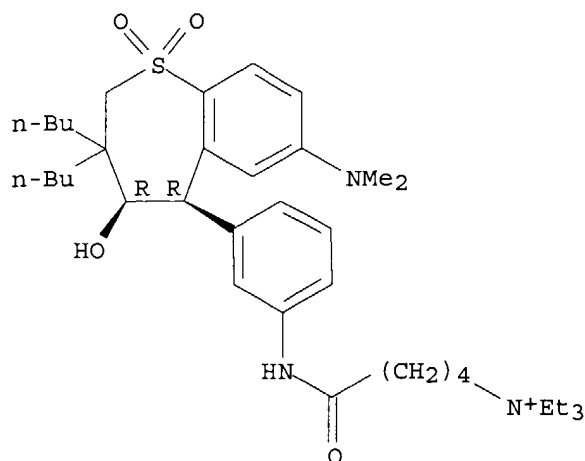


PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT

HOW MANY MORE ANSWERS DO YOU WISH TO SCAN? (1):1

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 MF C37 H60 N3 O4 S
 CI COM

Relative stereochemistry.



ALL ANSWERS HAVE BEEN SCANNED

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 FULL SCREEN SEARCH COMPLETED - 678 TO ITERATE

100.0% PROCESSED 678 ITERATIONS
 SEARCH TIME: 00.00.01

72 ANSWERS

L3 72 SEA SSS FUL L1

=> file caplus
 COST IN U.S. DOLLARS
 FULL ESTIMATED COST

SINCE FILE	TOTAL
ENTRY	SESSION
155.84	156.05

FILE 'CAPLUS' ENTERED AT 16:31:12 ON 25 AUG 2004
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FILE COVERS 1907 - 25 Aug 2004 VOL 141 ISS 9
 FILE LAST UPDATED: 24 Aug 2004 (20040824/ED)

This file contains CAS Registry Numbers for easy and accurate substance identification.

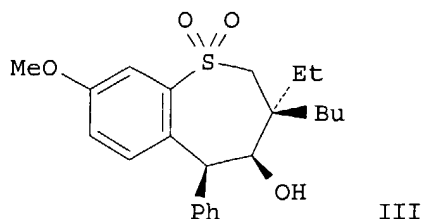
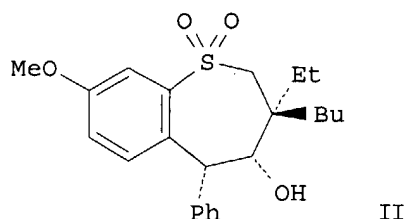
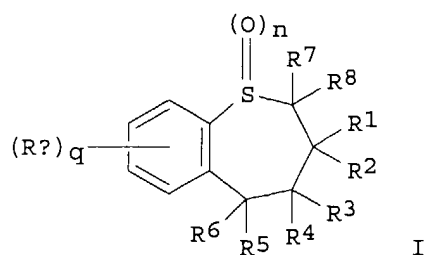
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=> dis l4 1-7 bib abs hitstr

L4 ANSWER 1 OF 7 CAPLUS COPYRIGHT 2004 ACS on STN
 AN 2004:60147 CAPLUS
 DN 140:111291
 TI Preparation of substituted 5-aryl-benzothiepinines as ileal bile acid
 transport and taurocholate uptake inhibitors
 IN Lee, Len F.; Banerjee, Shyamal C.; Huang, Horng Chih; Li, Jinglin J.;
 Miller, Raymond E.; Reitz, David B.; Tremont, Samuel J.
 PA G.D. Searle and Co., USA
 SO U.S. Pat. Appl. Publ., 235 pp., Cont.-in-part of U.S. Ser. No. 831,284.
 CODEN: USXXCO
 DT Patent
 LA English
 FAN.CNT 9

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
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	EP 1440972	A1	20040728	EP 2004-10088	19970311
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	AU 761249	B2	20030529	AU 2000-53394	20000816
	US 2002013476	A1	20020131	US 2001-828968	20010409
	US 6387924	B2	20020514		
	US 2003171426	A1	20030911	US 2002-76091	20020215
	US 6642268	B2	20031104		
PRAI	US 1994-305526	B2	19940913		
	US 1995-517051	B1	19950821		
	US 1996-13119P	P	19960311		
	US 1997-816065	A2	19970311		
	US 2001-828968	A3	20010409		
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	US 1998-109551	A2	19980702		
	US 1999-275463	A1	19990324		
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OS	MARPAT 140:111291				
GI					



AB The title compds. (I) [wherein q = 1-4; n = 0-2; R1, R2 = H, (un)substituted (halo)alkyl, alkenyl, alkynyl, alkylaryl, arylalkyl, alkoxy(alkyl), dialkylamino, alkylthio, (polyalkyl)aryl, or cycloalkyl; or R1 and R2 taken together with the atoms to which they are attached = cycloalkyl; R3, R4 = H, alkyl, alkenyl, alkynyl, acyloxy, aryl, heterocyclyl, OR9, NR9R10, SR9, S(O)R9, SO2R9, or SO3R9; R9, R10 = H, (cyclo)alkyl, alkenyl, alkynyl, aryl(alkyl), acyl, heterocyclyl, or ammoniumalkyl; or R3 and R4 together = :O, :NOR11, :S, :NNR11R12, :NR9, or :CR11R12; R11, R12 = H, (cyclo)alkyl, alkenyl, alkynyl, aryl(alkyl), heterocyclyl, carboxylalkyl, carboalkoxyalkyl, cyanoalkyl, OR9, NR9R10, SR9, S(O)R9, SO2R9, SO3R9, CO2R9, CN, halo, oxo, or CONR9R10; R5, R6 = H, alkyl, aryl, etc.; R7, R8 = H, alkyl; Rx = H, (un)substituted (cyclo)alkyl, alkenyl, alkynyl, polyalkyl, acyloxy, aryl(alkyl), halo(alkyl), (quaternary) heterocyclyl, (quaternary) heteroaryl, polyether, alkoxy, amino, alkylthio, NO2, carboxy, carbamido, etc.] were prepared for the prophylaxis and treatment of hyperlipidemic conditions, such as those associated with atherosclerosis or hypercholesterolemia. Thus, KOBu-t was added to a solution of 2-((2-benzyl-5-methoxyphenylsulfonyl)methyl)-2-ethylhexanal (preparation given) and dry THF cooled to -1.6°C to give, after workup, II and III (96% combined yield). The isomers were separated upon recrystn. II inhibited IBAT-mediated uptake of [14C]-taurocholate in H14 cells with an IC50 of 0.1 μM and reduced serum cholesterol from 143 mg (7%) to 126 mg (2%) compared to control in cholesterol-fed hamsters in a 14-day test. In vitro taurocholate uptake assay data are included for nearly 600 compds. of the invention.

IT 197373-54-9P 197374-04-2P 197374-59-7P
197384-36-4P

RL: PAC (Pharmacological activity); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)

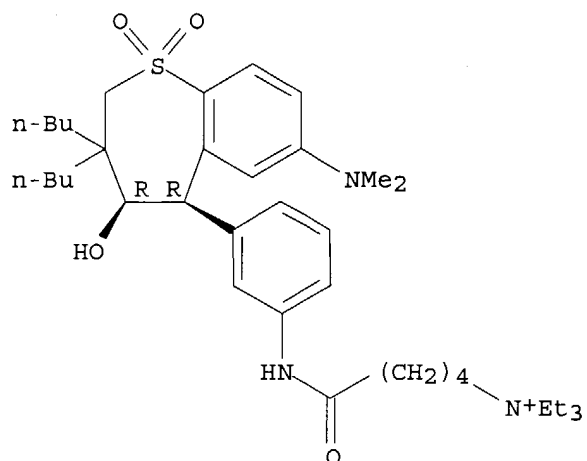
(hypolipemic agent; preparation of substituted 5-aryl-benzothiepinines by cyclization of 2-((2-benzyl- and 2-benzoylphenylthio)methyl)alkanals as ileal bile acid transport and taurocholate uptake inhibitors)

RN 197373-54-9 CAPLUS

CN 1-Pentanaminium, 5-[[3-[(4R,5R)-3,3-dibutyl-7-(dimethylamino)-2,3,4,5-tetrahydro-4-hydroxy-1,1-dioxido-1-benzothiepin-5-yl]phenyl]amino]-N,N,N-triethyl-5-oxo-, rel-, salt with trifluoroacetic acid (1:1) (9CI) (CA INDEX NAME)

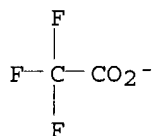
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CMF C37 H60 N3 O4 S

Relative stereochemistry.



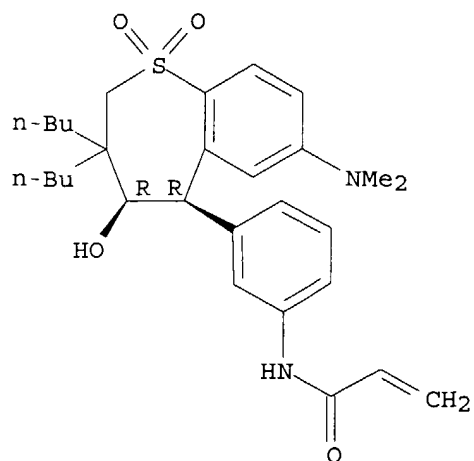
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CRN 14477-72-6
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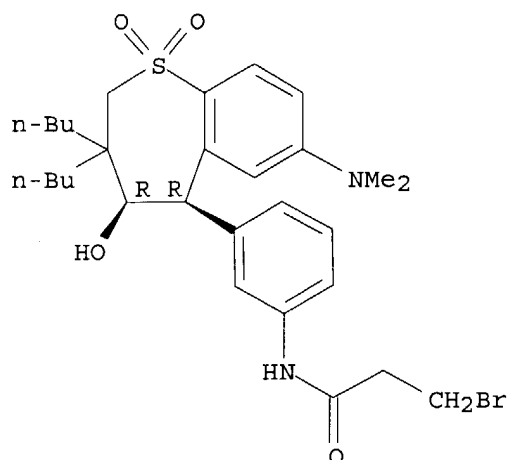
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(CA INDEX NAME)

Relative stereochemistry.



RN 197374-59-7 CAPLUS
 CN Propanamide, 3-bromo-N-[3-[(4R,5R)-3,3-dibutyl-7-(dimethylamino)-2,3,4,5-tetrahydro-4-hydroxy-1,1-dioxido-1-benzothiepin-5-yl]phenyl]-, rel- (9CI)
 (CA INDEX NAME)

Relative stereochemistry.

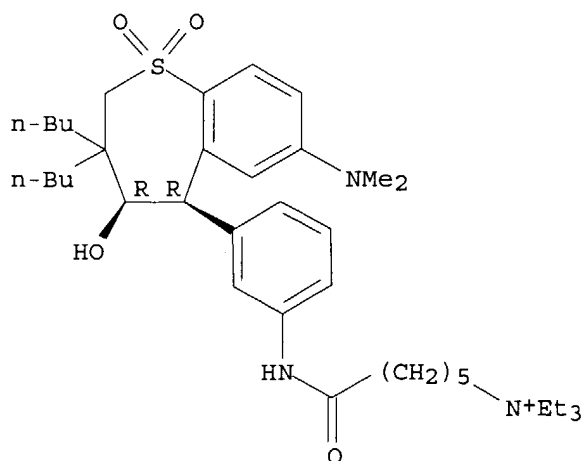


RN 197384-36-4 CAPLUS
 CN 1-Hexanaminium, 6-[[3-[(4R,5R)-3,3-dibutyl-7-(dimethylamino)-2,3,4,5-tetrahydro-4-hydroxy-1,1-dioxido-1-benzothiepin-5-yl]phenyl]amino]-N,N,N-triethyl-6-oxo-, rel-, salt with trifluoroacetic acid (1:1) (9CI) (CA INDEX NAME)

CM 1

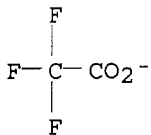
CRN 197384-35-3
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Relative stereochemistry.



CM 2

CMF C2 F3 O2



IT 197373-53-8P 647859-06-1P

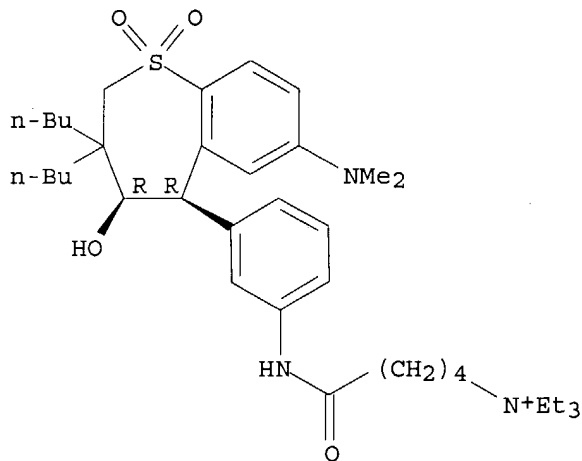
RL: PAC (Pharmacological activity); SPN (Synthetic preparation); **THU** (Therapeutic use); BIOL (Biological study); **PREP** (Preparation); USES (Uses)

(preparation of substituted 5-aryl-benzothiepienes by cyclization of 2-((2-benzyl- and 2-benzoylphenylthio)methyl)alkanals as ileal bile acid transport and taurocholate uptake inhibitors)

RN 197373-53-8 CAPLUS

CN 1-Pentanaminium, 5-[[3-[[4R,5R]-3,3-dibutyl-7-(dimethylamino)-2,3,4,5-tetrahydro-4-hydroxy-1,1-dioxido-1-benzothiepin-5-yl]phenyl]amino]-N,N,N-triethyl-5-oxo-, rel- (9CI) (CA INDEX NAME)

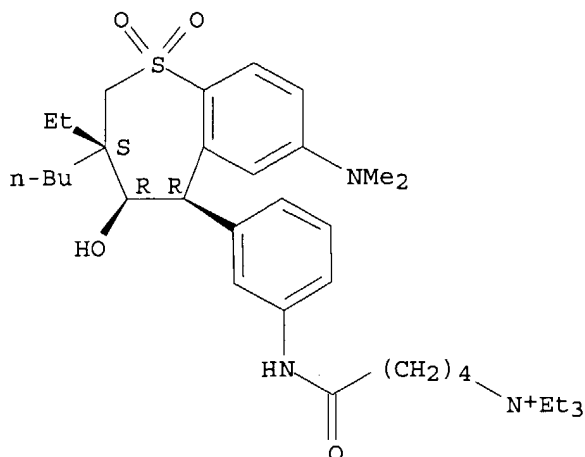
Relative stereochemistry.



RN 647859-06-1 CAPLUS

CN 1-Pentanaminium, 5-[[3-[(3R,4S,5S)-3-butyl-7-(dimethylamino)-3-ethyl-2,3,4,5-tetrahydro-4-hydroxy-1,1-dioxido-1-benzothiepin-5-yl]phenyl]amino]-N,N,N-triethyl-5-oxo-, rel- (9CI) (CA INDEX NAME)

Relative stereochemistry.



L4 ANSWER 2 OF 7 CAPLUS COPYRIGHT 2004 ACS on STN
 AN 2002:487559 CAPLUS
 DN 137:63115
 TI Preparation of diphenylazetidinone derivatives as hypolipidemic agents
 IN Glombik, Heiner; Kramer, Werner; Flohr, Stefanie; Frick, Wendelin; Heuer, Hubert; Jaehne, Gerhard; Lindenschmidt, Andreas; Schaefer, Hans-Ludwig
 PA Aventis Pharma Deutschland GmbH, Germany
 SO PCT Int. Appl., 67 pp.
 CODEN: PIXXD2
 DT Patent
 LA German
 FAN.CNT 2

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	WO 2002050068	A1	20020627	WO 2001-EP14532	20011211
	W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, OM, PH, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, UZ, VN, YU, ZA, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM				
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	EE 200300237	A	20030815	EE 2003-237	20011211
	EP 1345932	A1	20030924	EP 2001-271371	20011211
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	JP 2004516293	T2	20040603	JP 2002-551564	20011211
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PRAI	DE 2000-10064402	A	20001221		
	DE 2001-10154520	A	20011107		
	WO 2001-EP14532	W	20011211		
OS	MARPAT 137:63115				
GI					

* STRUCTURE DIAGRAM TOO LARGE FOR DISPLAY - AVAILABLE VIA OFFLINE PRINT *

AB The compds. are suited for use e.g. as hypolipidemic drugs. The invention discloses preparation of diphenylazetidinone derivs. such as I [R1, R2, R3, R4, R5, R6 = C0-C30-alkylene-L {optionally containing O, CO, CH:CH, C.tplbond.C, N(alkyl), N(alkylphenyl), NH}, H, F, Cl, Br, I, CF3, NO2, CN, CO2H, CO2(alkyl), CONH2, CONH(alkyl), CON(alkyl)2, alkyl, alkenyl, alkynyl, O-alkyl, SO2NH2, SO2NH(alkyl) SO2N(alkyl)2, S-(alkyl), SO(alkyl), (un)substituted S(CH2)nPh, SO(CH2)nPh, SO2(alkyl), SO2(CH2)nPh, NH2, NH(alkyl), N(alkyl)2, NH(acyl), (un)substituted Ph, O(CH2)nPh; n = 0-6; L = II; R7, R9, R10 = Me, Et, Pr, butyl; R8 = H, OH, NH2, NH(alkyl)], and their physiol. acceptable salts, for their use as hypolipidemic agents. Thus, 1,2-diphenylazetidinone derivative III-trifluoroacetate (IV) was prepared via a multistep synthetic sequence starting from 7-[3-(3-butyl-7-dimethylamino-3-ethyl-4-hydroxy-1,1-dioxo-2,3,4,5-tetrahydro-1H-benzo[b]thiepin-5-yl)-phenylcarbamoyl]-heptanoic acid and 4-(4-aminomethylphenyl)-1-(4-fluorophenyl)-3-[3-(4-fluorophenyl)-3-hydroxyphenyl]-azetidin-2-one. Azetidinone IV was tested for its cholesterol lowering ability [ED50 = 0.01 mg/mouse].

IT 439113-82-3P 439113-89-0P 439113-91-4P

439113-92-5P 439113-93-6P 439113-96-9P

439113-98-1P 439114-01-9P 439114-03-1P

439114-06-4P 439114-08-6P 439114-11-1P

439114-16-6P 439114-20-2P 439114-22-4P

439114-23-5P 439114-26-8P 439114-29-1P

439114-39-3P 439114-40-6P 439120-25-9P

RL: PAC (Pharmacological activity); SPN (Synthetic preparation); THU

(Therapeutic use); BIOL (Biological study); PREP

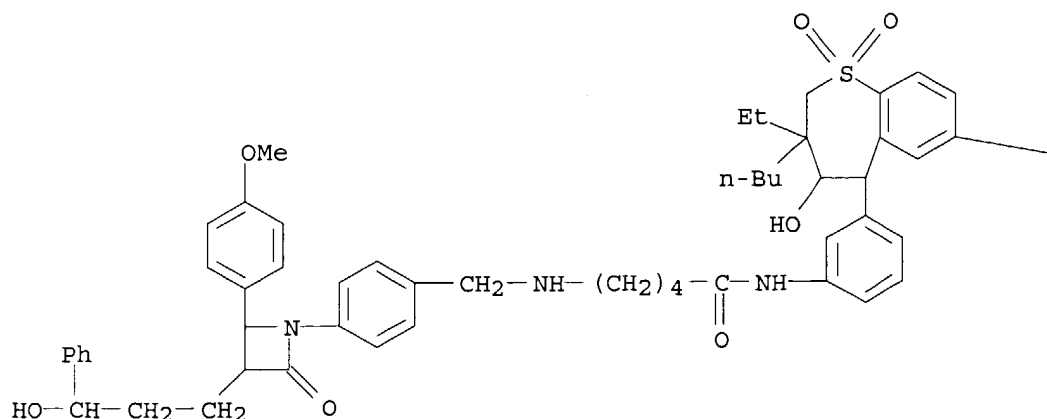
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(preparation of diphenylazetidinone derivs. as hypolipidemics)

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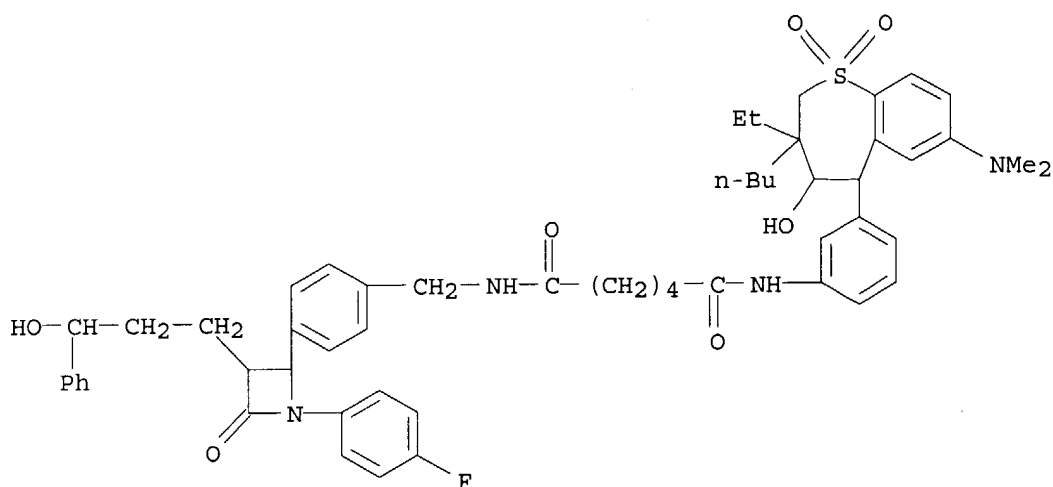
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PAGE 1-A

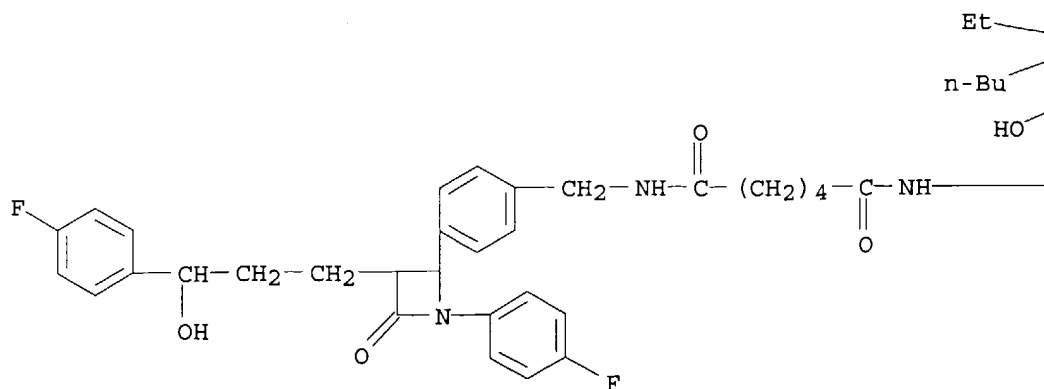


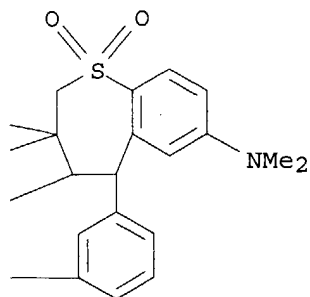
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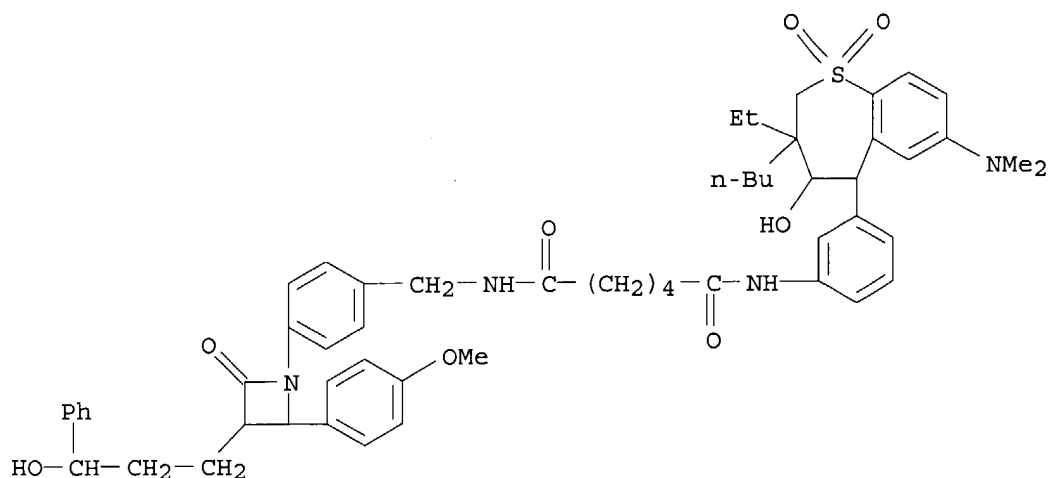


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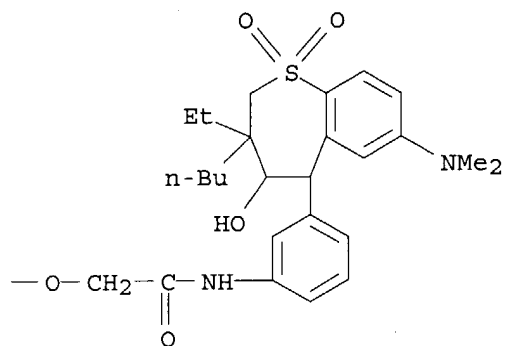
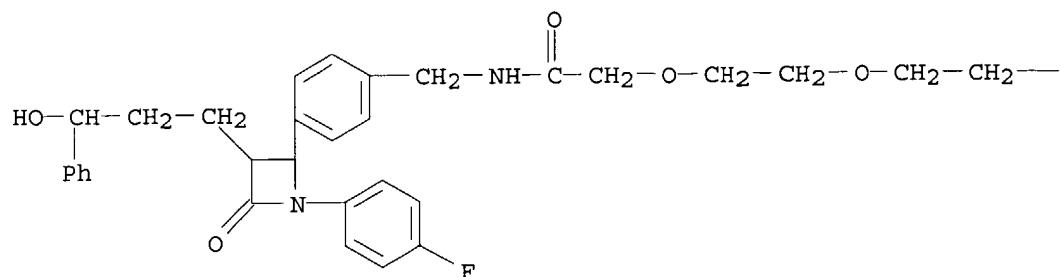




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 (CA INDEX NAME)



RN 439113-93-6 CAPLUS
 CN 5,8,11-Trioxa-2-azatridecan-13-amide, N-[3-[3-butyl-7-(dimethylamino)-3-ethyl-2,3,4,5-tetrahydro-4-hydroxy-1,1-dioxido-1-benzothiepin-5-yl]phenyl]-1-[4-[1-(4-fluorophenyl)-3-(3-hydroxy-3-phenylpropyl)-4-oxo-2-azetidiny]phenyl]-3-oxo- (9CI) (CA INDEX NAME)



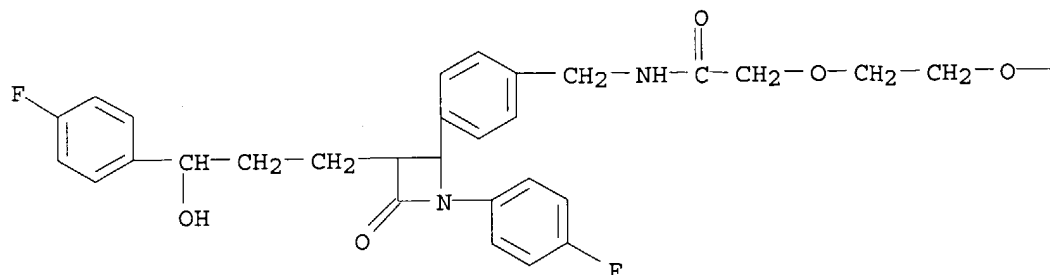
RN 439113-96-9 CAPLUS
 CN Acetamide, 2-[2-[2-[3-[3-butyl-7-(dimethylamino)-3-ethyl-2,3,4,5-tetrahydro-4-hydroxy-1,1-dioxido-1-benzothiepin-5-yl]phenyl]amino]-2-oxoethoxy]ethoxy]-N-[[4-[1-(4-fluorophenyl)-3-[3-(4-fluorophenyl)-3-hydroxypropyl]-4-oxo-2-azetidiny]phenyl]methyl]-, mono(trifluoroacetate) (salt) (9CI) (CA INDEX NAME)

CM 1

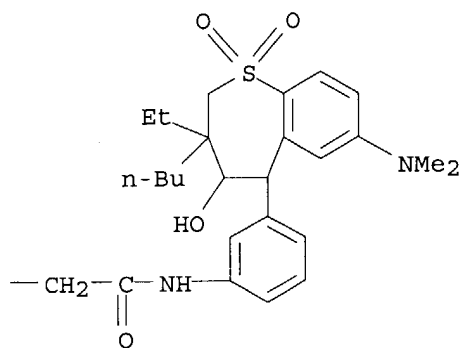
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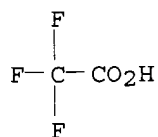
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CM 2

CRN 76-05-1

CMF C2 H F3 O2



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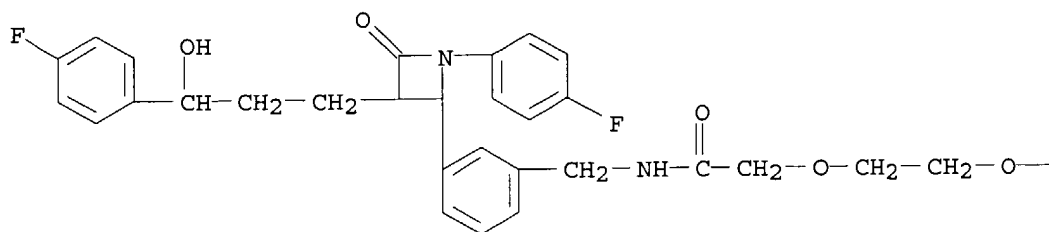
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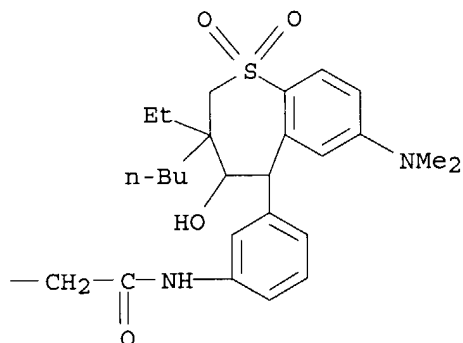
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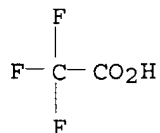
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CM 2

CRN 76-05-1

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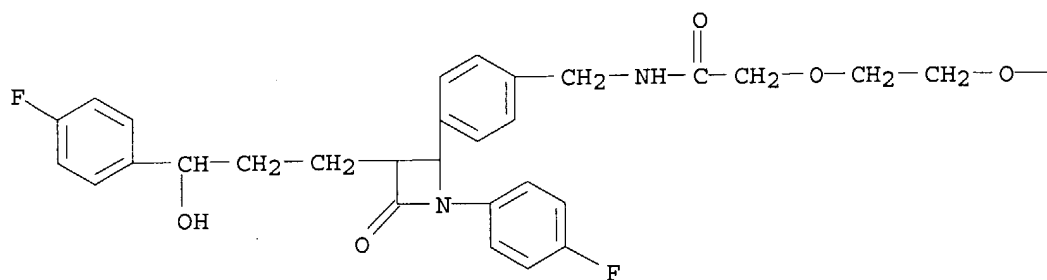
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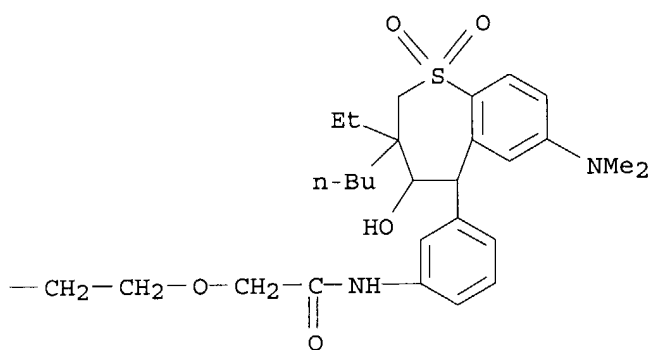
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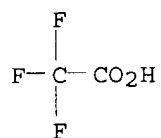
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CM 2

CRN 76-05-1

CMF C2 H F3 O2



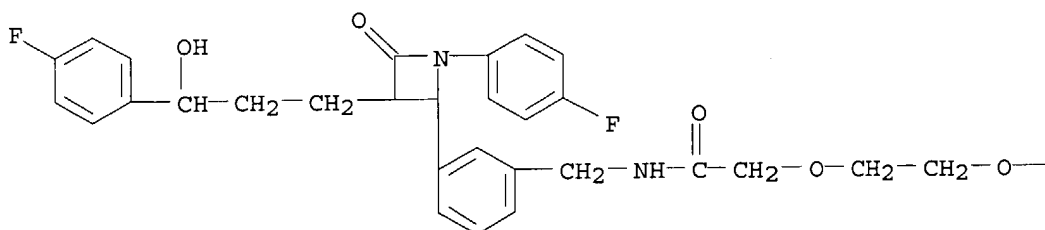
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CM 1

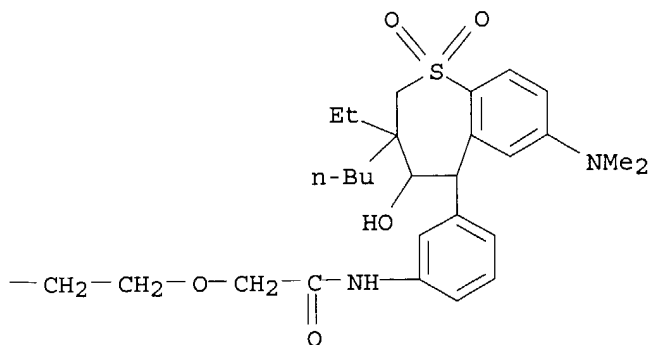
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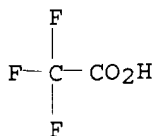
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CM 2

CRN 76-05-1

CMF C2 H F3 O2



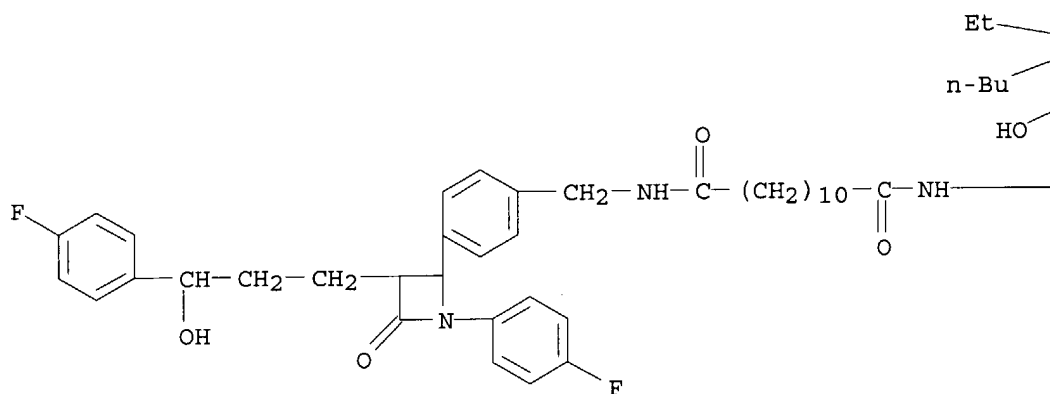
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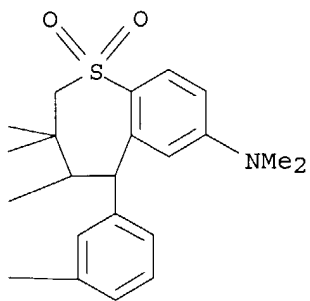
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CMF C61 H76 F2 N4 O7 S

PAGE 1-A



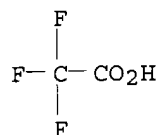
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CM 2

CRN 76-05-1

CMF C2 H F3 O2



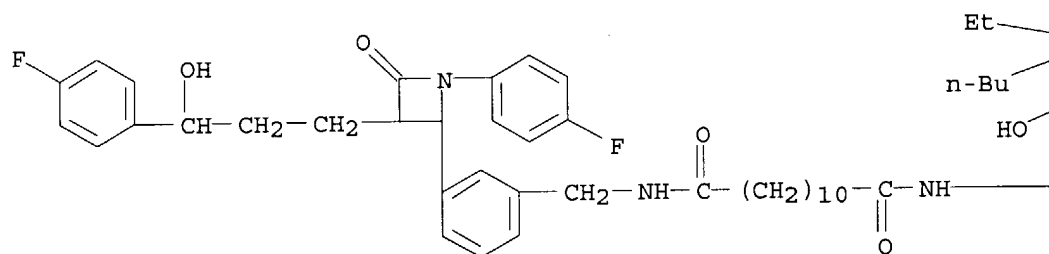
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CM 1

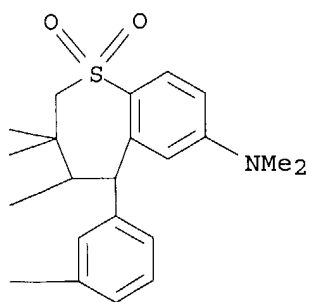
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PAGE 1-A



PAGE 1-B



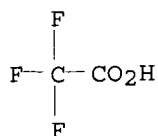
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CRN 76-05-1

CMF C2 H F3 O2

CM 2

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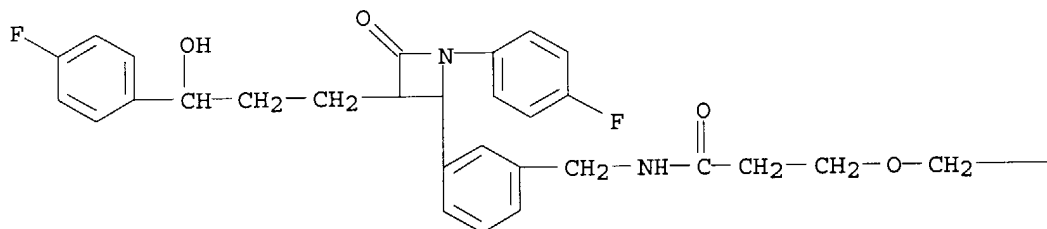


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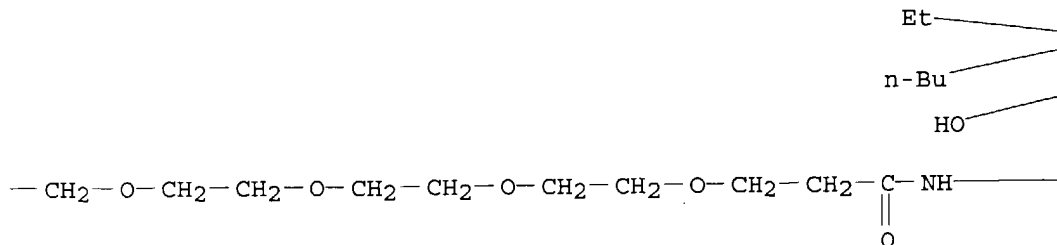
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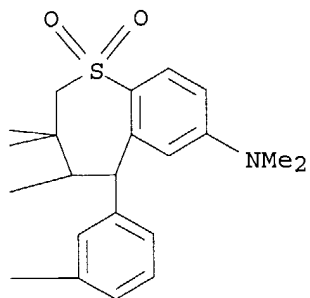
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PAGE 1-B

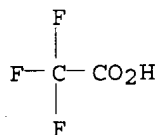




CM 2

CRN 76-05-1

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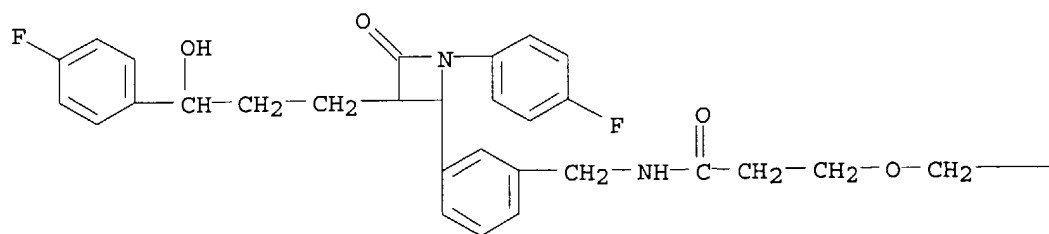
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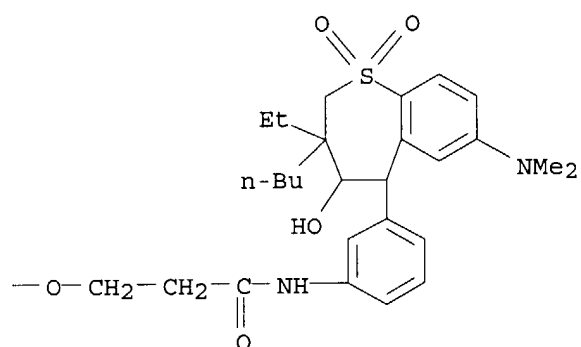
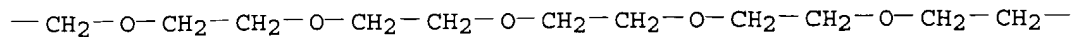
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CM 1

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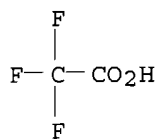
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CM 2

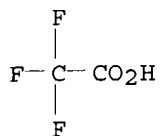
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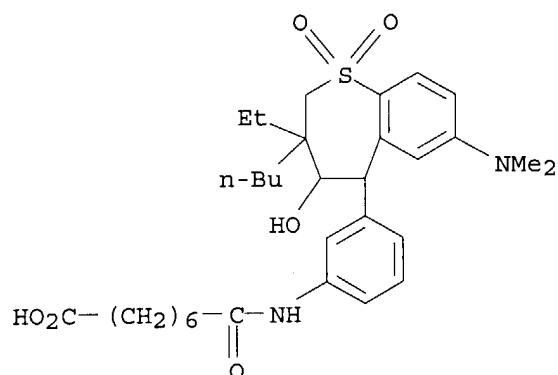
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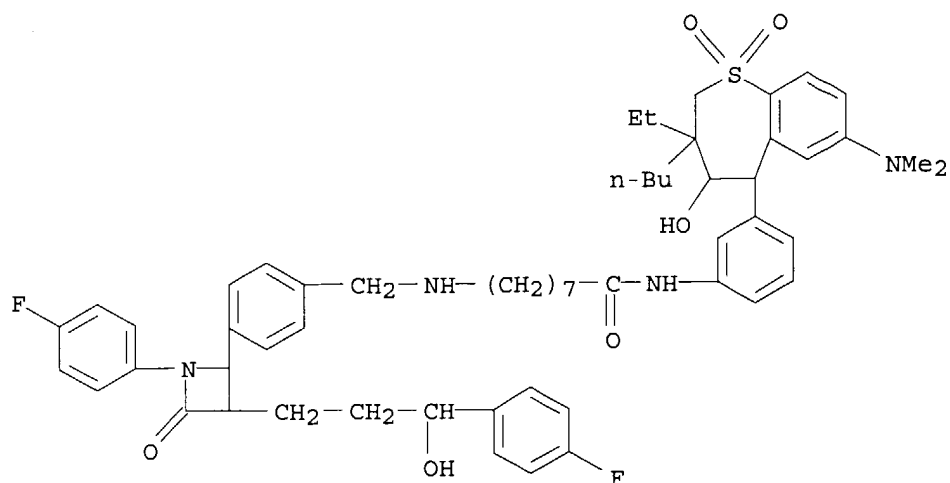
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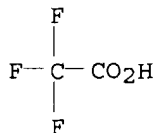
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CM 2

CRN 76-05-1

CMF C2 H F3 O2



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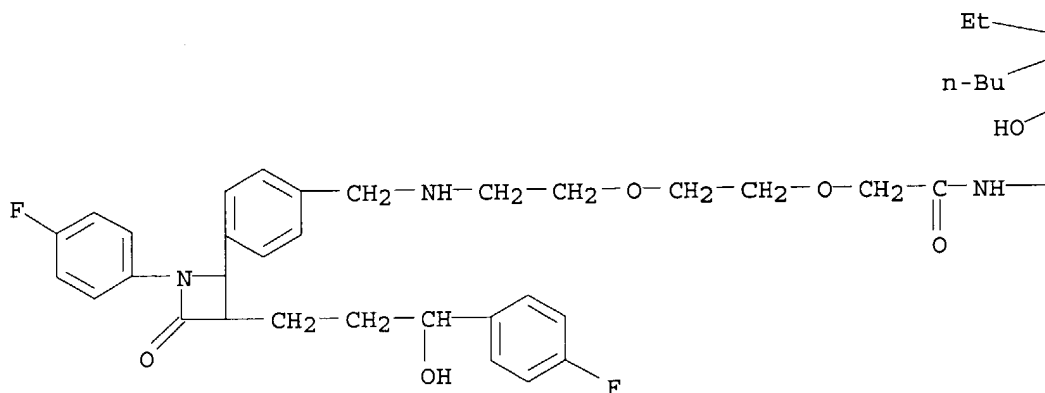
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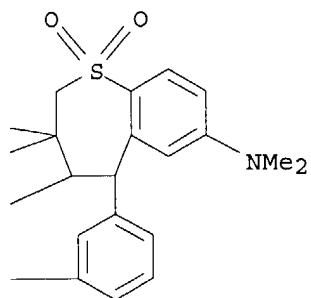
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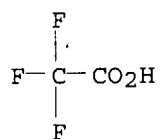




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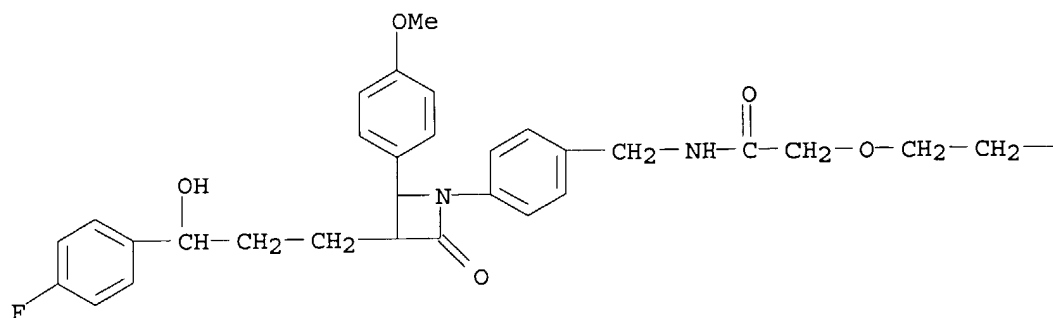
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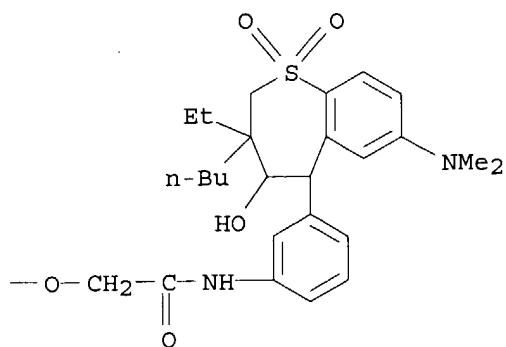
CMF C2 H F3 O2



RN 439114-39-3 CAPLUS

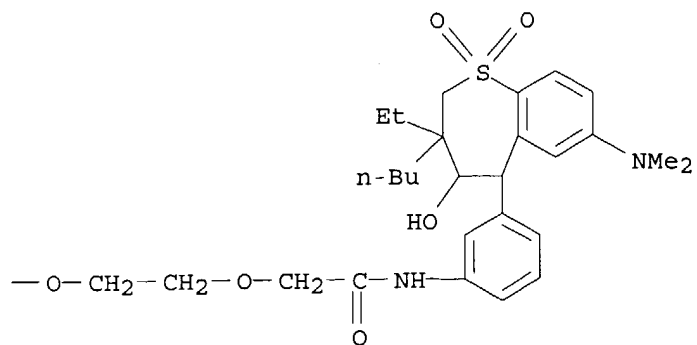
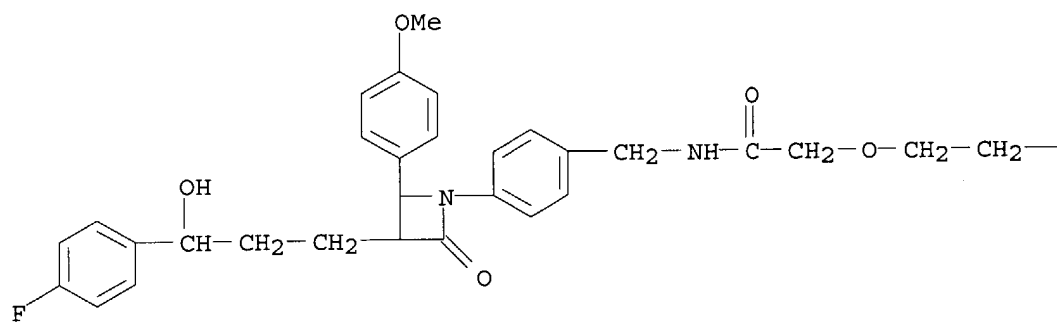
CN Acetamide, 2-[2-[2-[[3-[3-butyl-7-(dimethylamino)-3-ethyl-2,3,4,5-tetrahydro-4-hydroxy-1,1-dioxido-1-benzothiepin-5-yl]phenyl]amino]-2-oxoethoxy]ethoxy]-N-[[4-[3-[3-(4-fluorophenyl)-3-hydroxypropyl]-2-(4-methoxyphenyl)-4-oxo-1-azetidiny]phenyl]methyl]- (9CI) (CA INDEX NAME)





RN 439114-40-6 CAPLUS

CN 5,8,11-Trioxa-2-azatridecan-13-amide, N-[3-[3-butyl-7-(dimethylamino)-3-ethyl-2,3,4,5-tetrahydro-4-hydroxy-1,1-dioxido-1-benzothiepin-5-yl]phenyl]-1-[4-[3-[3-(4-fluorophenyl)-3-hydroxypropyl]-2-(4-methoxyphenyl)-4-oxo-1-azetidinyl]phenyl]-3-oxo- (9CI) (CA INDEX NAME)



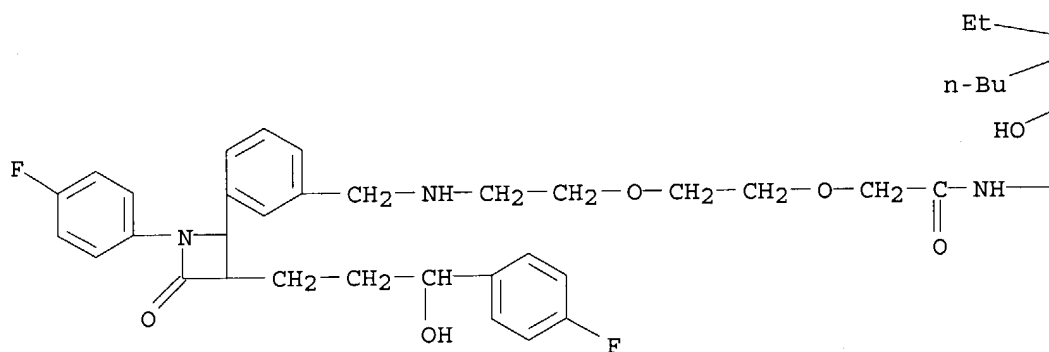
RN 439120-25-9 CAPLUS
 CN Acetamide, N-[3-[3-butyl-7-(dimethylamino)-3-ethyl-2,3,4,5-tetrahydro-4-hydroxy-1,1-dioxido-1-benzothiepin-5-yl]phenyl]-2-[2-[2-[[[3-[1-(4-fluorophenyl)-3-[3-(4-fluorophenyl)-3-hydroxypropyl]-4-oxo-2-azetidinyl]phenyl]methyl]amino]ethoxy]ethoxy]-, mono(trifluoroacetate)
 (salt) (9CI) (CA INDEX NAME)

CM 1

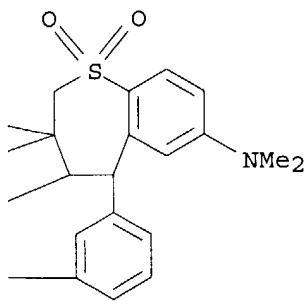
CRN 439120-24-8

CMF C55 H66 F2 N4 O8 S

PAGE 1-A



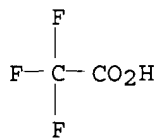
PAGE 1-B



CM 2

CRN 76-05-1

CMF C2 H F3 O2



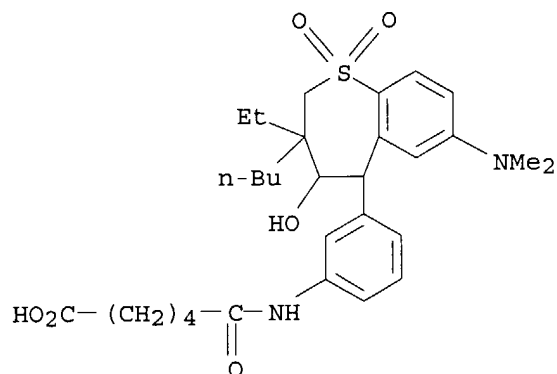
IT 439113-88-9P 439113-94-7P 439113-99-2P
 439114-04-2P 439114-14-4P 439114-18-8P
 439114-24-6P 439114-27-9P

RL: RCT (Reactant); SPN (Synthetic preparation); **PREP**
 (**Preparation**); RACT (Reactant or reagent)

(preparation of diphenylazetidinone derivs. as hypolipidemics)

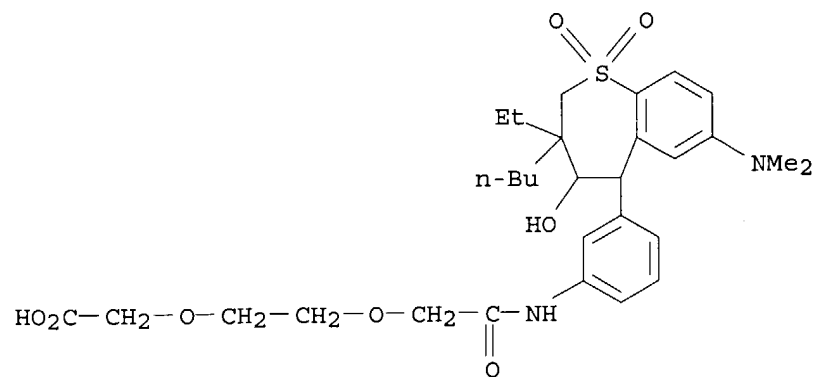
RN 439113-88-9 CAPLUS

CN Hexanoic acid, 6-[[3-[3-butyl-7-(dimethylamino)-3-ethyl-2,3,4,5-tetrahydro-4-hydroxy-1,1-dioxido-1-benzothiepin-5-yl]phenyl]amino]-6-oxo- (9CI) (CA INDEX NAME)



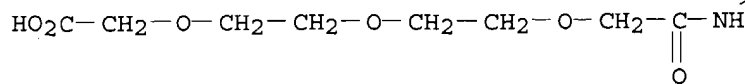
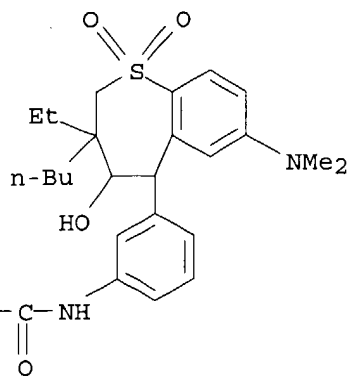
RN 439113-94-7 CAPLUS

CN Acetic acid, [2-[2-[[3-[3-butyl-7-(dimethylamino)-3-ethyl-2,3,4,5-tetrahydro-4-hydroxy-1,1-dioxido-1-benzothiepin-5-yl]phenyl]amino]-2-oxoethoxy]ethoxy]- (9CI) (CA INDEX NAME)

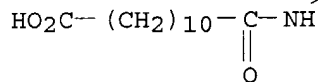
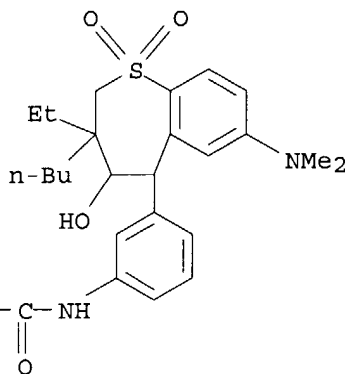


RN 439113-99-2 CAPLUS

CN Acetic acid, [2-[2-[2-[[3-[3-butyl-7-(dimethylamino)-3-ethyl-2,3,4,5-tetrahydro-4-hydroxy-1,1-dioxido-1-benzothiepin-5-yl]phenyl]amino]-2-oxoethoxy]ethoxy]ethoxy]- (9CI) (CA INDEX NAME)

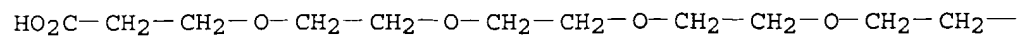


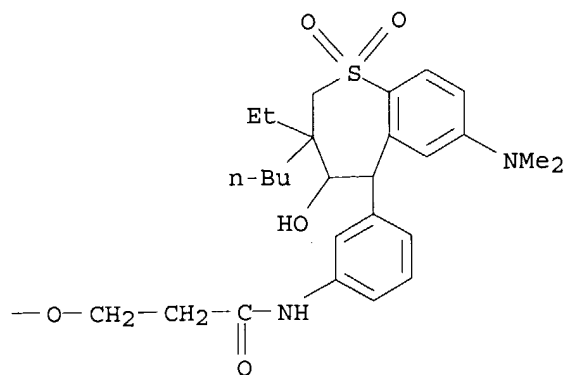
RN 439114-04-2 CAPLUS
 CN Dodecanoic acid, 12-[[3-[3-butyl-7-(dimethylamino)-3-ethyl-2,3,4,5-tetrahydro-4-hydroxy-1,1-dioxido-1-benzothiepin-5-yl]phenyl]amino]-12-oxo-(9CI) (CA INDEX NAME)



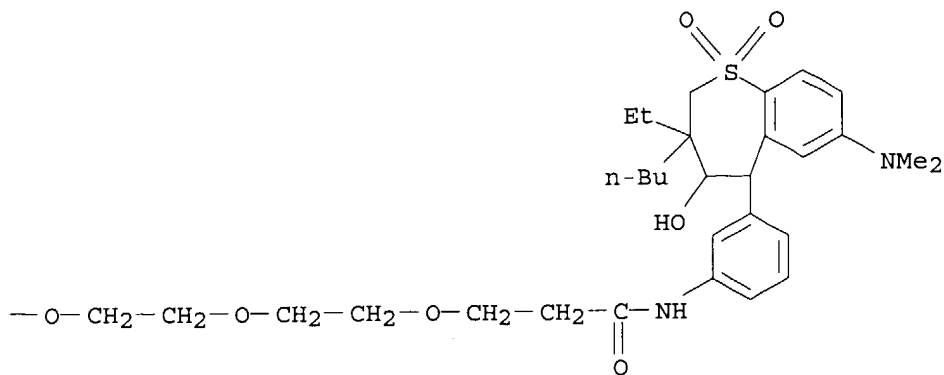
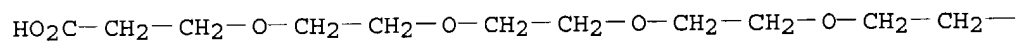
RN 439114-14-4 CAPLUS
 CN 4,7,10,13,16-Pentaoxanonadecanoic acid, 19-[[3-[3-butyl-7-(dimethylamino)-3-ethyl-2,3,4,5-tetrahydro-4-hydroxy-1,1-dioxido-1-benzothiepin-5-yl]phenyl]amino]-19-oxo-(9CI) (CA INDEX NAME)

PAGE 1-A



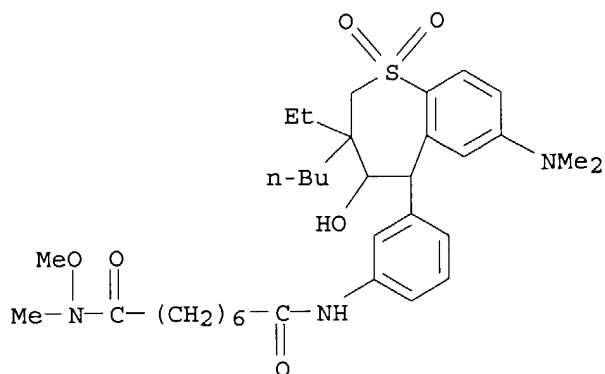


RN 439114-18-8 CAPLUS
 CN 4,7,10,13,16,19,22-Heptaoxapentacosanoic acid, 25-[[3-[3-butyl-7-(dimethylamino)-3-ethyl-2,3,4,5-tetrahydro-4-hydroxy-1,1-dioxido-1-benzothiepin-5-yl]phenyl]amino]-25-oxo- (9CI) (CA INDEX NAME)



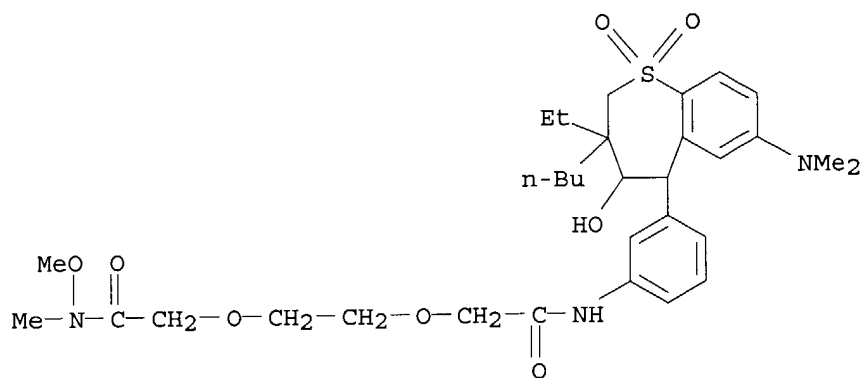
RN 439114-24-6 CAPLUS
 CN Octanediamide, N'-[3-[3-butyl-7-(dimethylamino)-3-ethyl-2,3,4,5-tetrahydro-4-hydroxy-1,1-dioxido-1-benzothiepin-5-yl]phenyl]-N-methoxy-N-methyl-

(9CI) (CA INDEX NAME)



RN 439114-27-9 CAPLUS

CN 2,6,9-Trioxa-3-azaundecan-11-amide, N-[3-[3-butyl-7-(dimethylamino)-3-ethyl-2,3,4,5-tetrahydro-4-hydroxy-1,1-dioxido-1-benzothiepin-5-yl]phenyl]-3-methyl-4-oxo- (9CI) (CA INDEX NAME)

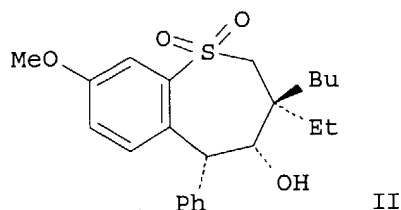
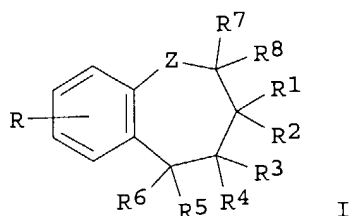


RE.CNT 5 THERE ARE 5 CITED REFERENCES AVAILABLE FOR THIS RECORD
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L4 ANSWER 3 OF 7 CAPLUS COPYRIGHT 2004 ACS on STN
AN 2001:560070 CAPLUS
DN 135:137410
TI Preparation of ileal bile acid transport inhibiting benzothiepinines for combination therapy with HMG Co-A reductase inhibitors.
IN Keller, Bradley T.; Glenn, Kevin C.; Manning, Robert E.
PA G.D. Searle and Co., USA
SO U.S., 356 pp., Cont.-in-part of U.S. Ser. No. 831,284, abandoned.
CODEN: USXXAM
DT Patent
LA English
FAN.CNT 9

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	US 6268392	B1	20010731	US 1998-37308	19980309
	EP 1440972	A1	20040728	EP 2004-10088	19970311
	R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, PT, IE, FI				
	AU 761249	B2	20030529	AU 2000-53394	20000816
	US 6420417	B1	20020716	US 2000-676466	20000929
	US 2003171426	A1	20030911	US 2002-76091	20020215

	US 6642268	B2	20031104		
	US 2004157915	A1	20040812	US 2003-620460	20030717
PRAI	US 1994-305526	A2	19940912		
	US 1995-517051	A1	19950821		
	US 1996-13119P	P	19960311		
	US 1997-40660P	P	19970311		
	US 1997-816065	A2	19970311		
	US 1997-831284	B2	19970331		
	AU 1997-23266	A3	19970311		
	EP 1997-915976	A3	19970311		
	US 1998-37308	A3	19980309		
	US 2000-676466	A3	20000929		
	US 2002-76091	A1	20020215		
OS	MARPAT 135:137410				
GI					



AB Title compds. [I; R = H or 1-4 of alkyl, alkenyl, alkynyl, acyloxy, aryl, aralkyl, halo, etc.; R1, R2 = H, (substituted) alkyl, alkenyl, alkynyl, haloalkyl, alkylaryl, alkoxy, dialkylamino, etc.; R1R2C = cycloalkylidene; R3, R4 = H, alkyl, alkenyl, alkynyl, acyloxy, aryl, heterocyclyl, heteroaryl, etc.; R3R4 = O, S, NOR11, etc.; R11 = H, alkyl, alkenyl, alkynyl, aryl, aralkyl, etc.; R5, R6 = H, alkyl, alkenyl, alkynyl, aryl, cycloalkyl, heterocyclyl, etc.; R7, R8 = H, alkyl; Z = SO0-2], were prepared. A composition comprising an ileal bile acid transport inhibitor and an HMG Co-A reductase inhibitor is claimed. Thus, title compound (II) (preparation via 2-mercapto-4-methoxybenzophenone given) at 0.2% as an ileal perfusion in guinea pigs reduced HDL cholesterol from 89 mg% to 76 mg%.

IT 197374-04-2P 197374-59-7P 197384-36-4P
213312-84-6P

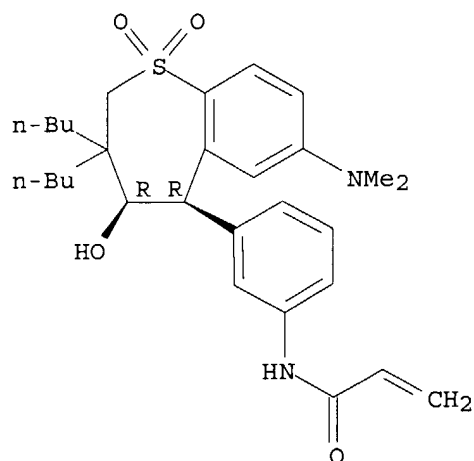
RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)

(preparation of ileal bile acid transport inhibiting benzothiepins for combination therapy with HMG Co-A reductase inhibitors)

RN 197374-04-2 CAPLUS

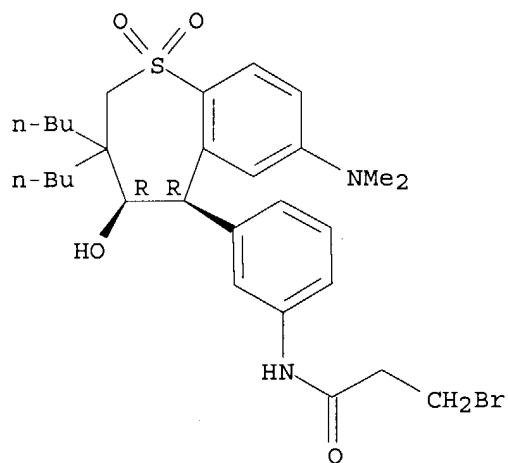
CN 2-Propenamide, N-[3-[(4R,5R)-3,3-dibutyl-7-(dimethylamino)-2,3,4,5-tetrahydro-4-hydroxy-1,1-dioxido-1-benzothiepin-5-yl]phenyl]-, rel- (9CI)
(CA INDEX NAME)

Relative stereochemistry.



RN 197374-59-7 CAPLUS
 CN Propanamide, 3-bromo-N-[3-[(4R,5R)-3,3-dibutyl-7-(dimethylamino)-2,3,4,5-tetrahydro-4-hydroxy-1,1-dioxido-1-benzothiepin-5-yl]phenyl]-, rel- (9CI)
 (CA INDEX NAME)

Relative stereochemistry.

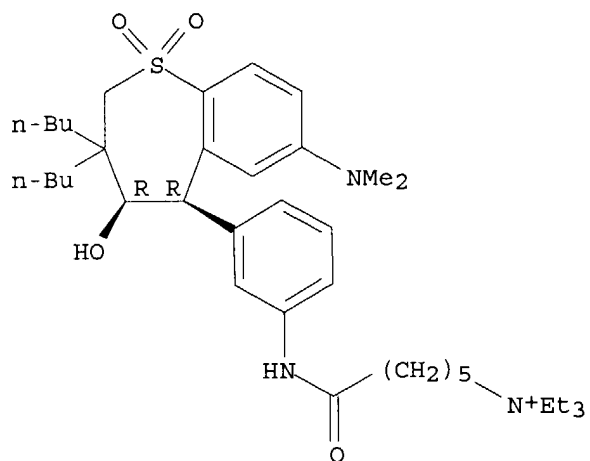


RN 197384-36-4 CAPLUS
 CN 1-Hexanaminium, 6-[[3-[(4R,5R)-3,3-dibutyl-7-(dimethylamino)-2,3,4,5-tetrahydro-4-hydroxy-1,1-dioxido-1-benzothiepin-5-yl]phenyl]amino]-N,N,N-triethyl-6-oxo-, rel-, salt with trifluoroacetic acid (1:1) (9CI) (CA INDEX NAME)

CM 1

CRN 197384-35-3
 CMF C38 H62 N3 O4 S

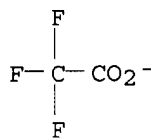
Relative stereochemistry.



CM 2

CRN 14477-72-6

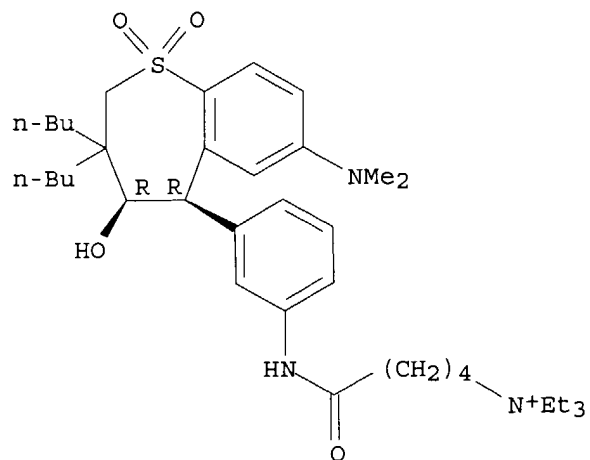
CMF C2 F3 O2



RN 213312-84-6 CAPLUS

CN 1-Pentanaminium, 5-[[3-[(4R,5R)-3,3-dibutyl-7-(dimethylamino)-2,3,4,5-tetrahydro-4-hydroxy-1,1-dioxido-1-benzothiepin-5-yl]phenyl]amino]-N,N,N-triethyl-5-oxo-, iodide, rel- (9CI) (CA INDEX NAME)

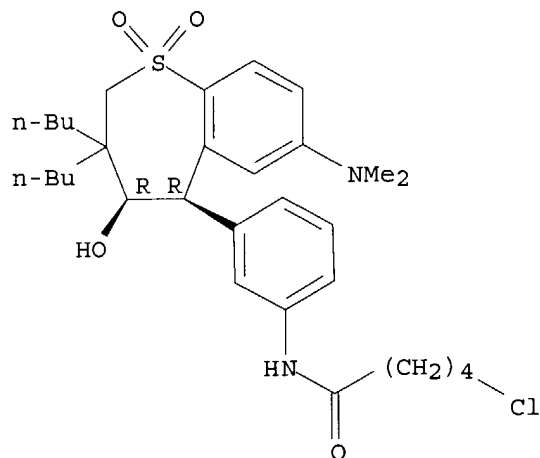
Relative stereochemistry.



● I⁻

IT 213312-74-4P
 RL: RCT (Reactant); SPN (Synthetic preparation); **PREP**
 (**Preparation**); RACT (Reactant or reagent)
 (preparation of ileal bile acid transport inhibiting benzothiepinines for
 combination therapy with HMG Co-A reductase inhibitors)
 RN 213312-74-4 CAPLUS
 CN Pentanamide, 5-chloro-N-[3-[(4R,5R)-3,3-dibutyl-7-(dimethylamino)-2,3,4,5-
 tetrahydro-4-hydroxy-1,1-dioxido-1-benzothiepin-5-yl]phenyl]-, rel- (9CI)
 (CA INDEX NAME)

Relative stereochemistry.

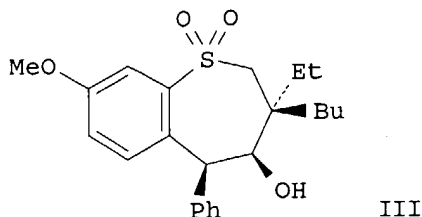
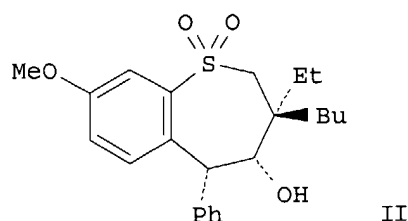
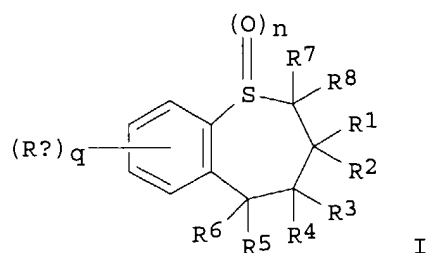


RE.CNT 76 THERE ARE 76 CITED REFERENCES AVAILABLE FOR THIS RECORD
 ALL CITATIONS AVAILABLE IN THE RE FORMAT

L4 ANSWER 4 OF 7 CAPLUS COPYRIGHT 2004 ACS on STN
 AN 2000:590035 CAPLUS
 DN 133:193089
 TI Preparation of substituted 5-aryl-benzothiepinines as ileal bile acid
 transport and taurocholate uptake inhibitors
 IN Lee, Len F.; Banerjee, Shyamal C.; Huang, Horng-chih; Li, Jinglin J.;
 Miller, Raymond E.; Reitz, David B.; Tremont, Samuel J.
 PA G.D. Searle and Co., USA
 SO U.S., 191 pp., Cont.-in-part of U. S. Ser. No. 109,551.
 CODEN: USXXAM
 DT Patent
 LA English
 FAN.CNT 9

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 6107494	A	20000822	US 1999-275463	19990324
EP 1440972	A1	20040728	EP 2004-10088	19970311
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, PT, IE, FI				
US 5994391	A	19991130	US 1998-109551	19980702
EP 1331225	A1	20030730	EP 2003-5459	19981216
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, PT, IE, FI				
CA 2336315	AA	20000113	CA 1999-2336315	19990629
WO 2000001687	A1	20000113	WO 1999-US12828	19990629
W: AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CU, CZ, DE,				
DK, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IS, JP, KE,				
KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MD, MG, MK, MN, MW,				
MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR,				
TT, UA, UG, US, UZ, VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU,				

	TJ, TM			
	RW: GH, GM, KE, LS, MW, SD, SL, SZ, UG, ZW, AT, BE, CH, CY, DE, DK,			
	ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG,			
	CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG			
AU 9948202	A1	20000124	AU 1999-48202	19990629
AU 766957	B2	20031030		
EP 1091953	A1	20010418	EP 1999-931769	19990629
EP 1091953	B1	20031210		
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	IE, SI, LT, LV, FI, RO			
TR 200100824	T2	20010723	TR 2001-200100824	19990629
BR 9911737	A	20011211	BR 1999-11737	19990629
EE 200100002	A	20020617	EE 2001-2	19990629
JP 2002519418	T2	20020702	JP 2000-558091	19990629
NZ 509621	A	20030829	NZ 1999-509621	19990629
AT 256122	E	20031215	AT 1999-931769	19990629
US 6262277	B1	20010717	US 1999-443403	19991119
AU 761249	B2	20030529	AU 2000-53394	20000816
NO 2001000016	A	20010302	NO 2001-16	20010102
ZA 2001000028	A	20010725	ZA 2001-28	20010102
HR 2001000004	A1	20011231	HR 2001-4	20010102
BG 105206	A	20010928	BG 2001-105206	20010131
US 2002013476	A1	20020131	US 2001-828968	20010409
US 6387924	B2	20020514		
US 2002188119	A1	20021212	US 2002-72600	20020211
US 2003171426	A1	20030911	US 2002-76091	20020215
US 6642268	B2	20031104		
JP 2004203891	A2	20040722	JP 2004-50473	20040225
PRAI US 1994-305526	B2	19940913		
US 1995-517051	B1	19950821		
US 1996-13119P	P	19960311		
US 1997-816065	B2	19970311		
US 1997-831284	B2	19970331		
US 1997-68170P	P	19971219		
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EP 1997-915976	A3	19970311		
US 1997-40660P	P	19970311		
EP 1998-962044	A3	19981216		
US 1999-275463	A1	19990324		
JP 2000-558091	A3	19990629		
WO 1999-US12828	W	19990629		
US 1999-443403	A1	19991119		
US 2000-676466	A3	20000929		
US 2000-581897	A3	20001002		
OS MARPAT 133:193089				
GI				



AB The title compds. (I) [wherein q = 1-4; n = 2; R1 and R2 = independently H or (un)substituted (halo)alkyl, alkenyl, alkynyl, alkylaryl, arylalkyl, alkoxy(alkyl), dialkylamino, alkylthio, (polyalkyl)aryl, or cycloalkyl; or R1 and R2 taken together with the atoms to which they are attached = cycloalkyl; R3 and R4 = independently H, alkyl, alkenyl, alkynyl, acyloxy, aryl, heterocyclyl, OR9, NR9R10, SR9, S(O)R9, SO2R9, or SO3R9; R9 and R10 = independently H, (cyclo)alkyl, alkenyl, alkynyl, aryl(alkyl), acyl, heterocyclyl, or ammoniumalkyl; or R3 and R4 together = :O, :NOR11, :S, :NNR11R12, :NR9, or :CR11R12; R11 and R12 = independently H, (cyclo)alkyl, alkenyl, alkynyl, aryl(alkyl), heterocyclyl, carboxylalkyl, carboalkoxyalkyl, cyanoalkyl, OR9, NR9R10, SR9, S(O)R9, SO2R9, SO3R9, CO2R9, CN, halo, oxo, or CONR9R10; R5 = substituted aryl; R6 = H; R7 and R8 = independently H or alkyl; Rx = independently H or (un)substituted (cyclo)alkyl, alkenyl, alkynyl, polyalkyl, acyloxy, aryl(alkyl), halo(alkyl), (quaternary) heterocyclyl, (quaternary) heteroaryl, polyether, alkoxy, amino, alkylthio, NO2, carboxy, carbamido, etc.] where prepared for the prophylaxis and treatment of hyperlipidemic conditions, such as those associated with atherosclerosis or hypercholesterolemia. Thus, KOBu-t was added to a solution of 2-((2-benzyl-5-methoxyphenylsulfonyl)methyl)-2-ethylhexanal (preparation given) and dry THF cooled to -1.6°C to give, after workup, II and III (96% combined yield). The isomers were separated upon recrystn. II inhibited IBAT-mediated uptake of [14C]-taurocholate in H14 cells with an IC50 of 0.1 μM and reduced serum cholesterol from 143 mg (7%) to 126 mg (2%) compared to control in cholesterol-fed hamsters in a 14-day test. In vitro taurocholate uptake assay data are included for nearly 600 compds. of the invention.

IT 197373-54-9P 197374-04-2P 197374-59-7P
197384-36-4P

RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); SPN (Synthetic preparation); **THU (Therapeutic use)**; BIOL (Biological study); **PREP (Preparation)**; USES (Uses)

(hypolipemic agent; preparation of substituted 5-aryl-benzothiepines by cyclization of 2-((2-benzyl- and 2-benzoylphenylthio)methyl)alkanals as ileal bile acid transport and taurocholate uptake inhibitors)

RN 197373-54-9 CAPLUS

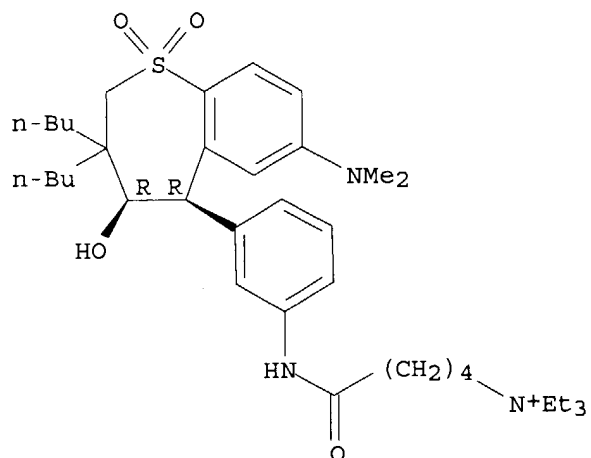
CN 1-Pentanaminium, 5-[[[3-[(4R,5R)-3,3-dibutyl-7-(dimethylamino)-2,3,4,5-tetrahydro-4-hydroxy-1,1-dioxido-1-benzothiepin-5-yl]phenyl]amino]-N,N,N-triethyl-5-oxo-, rel-, salt with trifluoroacetic acid (1:1) (9CI) (CA INDEX NAME)

CM 1

CRN 197373-53-8

CMF C37 H60 N3 O4 S

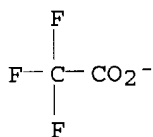
Relative stereochemistry.



CM 2

CRN 14477-72-6

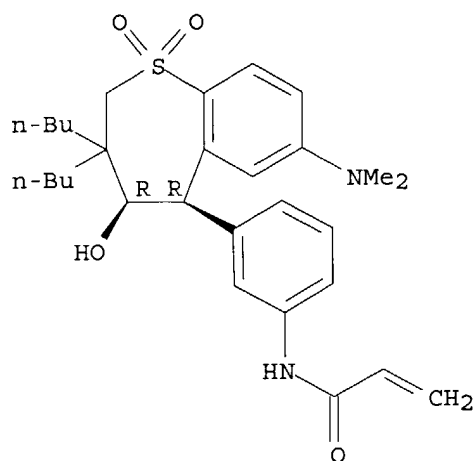
CMF C2 F3 O2



RN 197374-04-2 CAPLUS

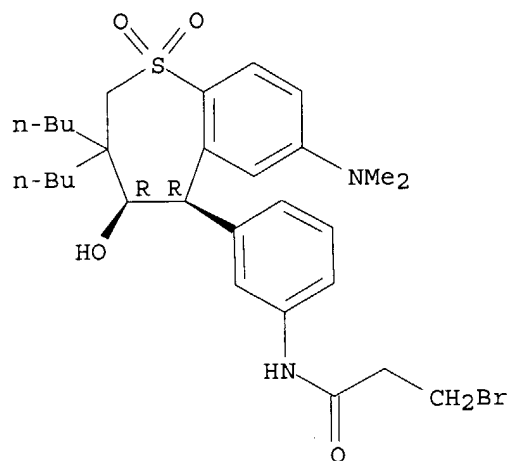
CN 2-Propenamide, N-[3-[(4R,5R)-3,3-dibutyl-7-(dimethylamino)-2,3,4,5-tetrahydro-4-hydroxy-1,1-dioxido-1-benzothiepin-5-yl]phenyl]-, rel- (9CI)
(CA INDEX NAME)

Relative stereochemistry.



RN 197374-59-7 CAPLUS
 CN Propanamide, 3-bromo-N-[3-[(4R,5R)-3,3-dibutyl-7-(dimethylamino)-2,3,4,5-tetrahydro-4-hydroxy-1,1-dioxido-1-benzothiepin-5-yl]phenyl]-, rel- (9CI)
 (CA INDEX NAME)

Relative stereochemistry.

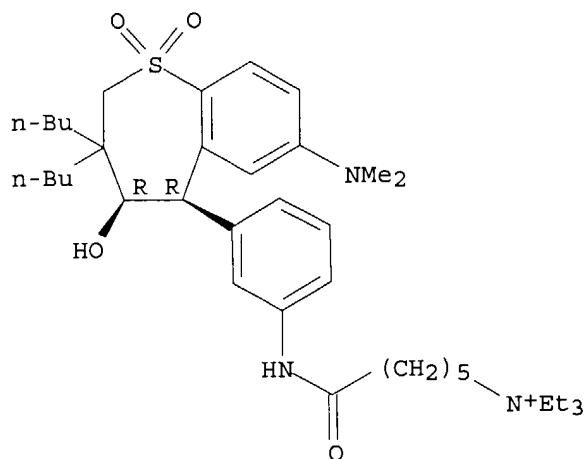


RN 197384-36-4 CAPLUS
 CN 1-Hexanaminium, 6-[[3-[(4R,5R)-3,3-dibutyl-7-(dimethylamino)-2,3,4,5-tetrahydro-4-hydroxy-1,1-dioxido-1-benzothiepin-5-yl]phenyl]amino]-N,N,N-triethyl-6-oxo-, rel-, salt with trifluoroacetic acid (1:1) (9CI) (CA INDEX NAME)

CM 1

CRN 197384-35-3
 CMF C38 H62 N3 O4 S

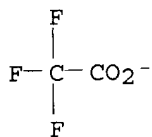
Relative stereochemistry.



CM 2

CRN 14477-72-6

CMF C2 F3 O2



RE.CNT 56 THERE ARE 56 CITED REFERENCES AVAILABLE FOR THIS RECORD
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L4 ANSWER 5 OF 7 CAPLUS COPYRIGHT 2004 ACS on STN
AN 1999:795802 CAPLUS
DN 132:22884
TI Preparation of benzothiepine-1,1-dioxides as hypolipemics
IN Frick, Wendelin; Enhsen, Alfons; Glombik, Heiner; Heuer, Hubert
PA Hoechst Marion Roussel Deutschland G.m.b.H., Germany
SO PCT Int. Appl., 30 pp.
CODEN: PIXXD2

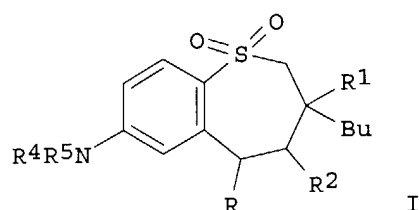
DT Patent

LA German

FAN.CNT 9

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	WO 9964409	A2	19991216	WO 1999-EP3743	19990529
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	RW:	GH, GM, KE, LS, MW, SD, SL, SZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG			
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	DE 19825804	C2	20000824		

TR 200003634	T2	20010621	TR 2000-200003634	19990528
ES 2182535	T3	20030301	ES 1999-927784	19990528
PT 1086092	T	20030331	PT 1999-927784	19990528
CA 2334773	AA	19991216	CA 1999-2334773	19990529
AU 9945031	A1	19991230	AU 1999-45031	19990529
AU 752633	B2	20020926		
EP 1086113	A2	20010328	EP 1999-927802	19990529
EP 1086113	B1	20040211		
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, PT, IE, FI				
TR 200003632	T2	20010420	TR 2000-200003632	19990529
JP 2002517490	T2	20020618	JP 2000-553418	19990529
JP 3374129	B2	20030204		
NZ 508681	A	20020628	NZ 1999-508681	19990529
RU 2220141	C2	20031227	RU 2001-101499	19990529
AT 259372	E	20040215	AT 1999-927802	19990529
US 6221897	B1	20010424	US 1999-398315	19990920
AU 761249	B2	20030529	AU 2000-53394	20000816
ZA 2000007060	A	20010718	ZA 2000-7060	20001130
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NO 2000006251	A	20010207	NO 2000-6251	20001208
US 2002045583	A1	20020418	US 2001-773772	20010202
US 6441022	B2	20020827		
US 2003017996	A1	20030123	US 2002-201050	20020724
US 6642269	B2	20031104		
US 2004087648	A1	20040506	US 2003-606771	20030627
PRAI DE 1998-19825804	A	19980610		
US 1996-13119P	P	19960311		
AU 1997-23266	A3	19970311		
WO 1999-EP3743	W	19990529		
US 1999-398315	A1	19990920		
US 2001-773772	A1	20010202		
US 2002-201050	A1	20020724		
OS MARPAT 132:22884				
GI				



AB Title compds. [I; R = C₆H₄NHZR₃; R₁, R₄, R₅ = Me, Et, Pr, Bu; R₂ = H, OH, amino(alkyl); R₃ = sugar residue; Z = bond, carbonyl(alkylene), CONH, etc.] were prepared. Thus, I [R = C₆H₄(NHR')-3, R₁ = Et, R₂ = OH, R₄ = R₅ = Me] (II; R' = H) was amidated by penta-O-acetyl-D-gluconic acid and the product deprotected to give II (R' = gluconoyl) as a mixture of diastereomers. Data for biol. activity of I were given.

IT 252047-36-2P 252047-37-3P 252047-38-4P
 252047-39-5P 252047-40-8P 252047-41-9P
 252208-66-5P 252208-67-6P 252208-68-7P
 252208-69-8P 252208-70-1P 252208-71-2P

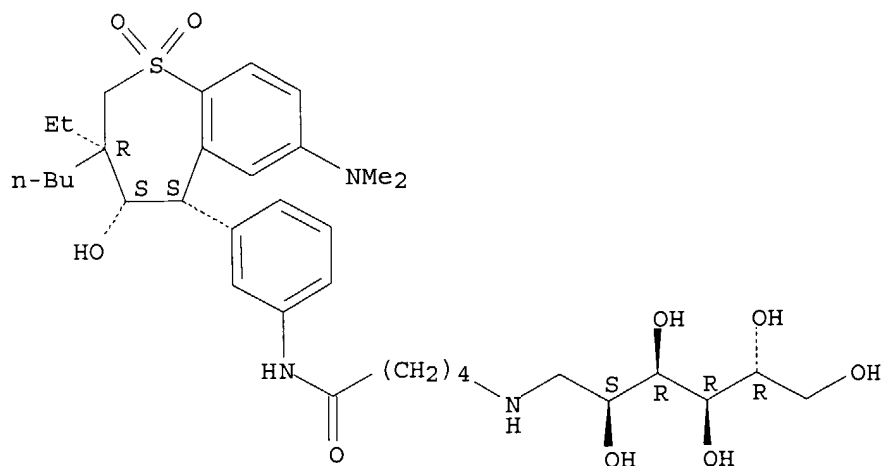
RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); SPN (Synthetic preparation); **THU (Therapeutic use)**; BIOL (Biological study); **PREP (Preparation)**; USES (Uses)

(preparation of benzothiepine-1,1-dioxides as hypolipemics)

RN 252047-36-2 CAPLUS

CN D-Glucitol, 1-[[5-[[3-[(3R,4S,5S)-3-butyl-7-(dimethylamino)-3-ethyl-2,3,4,5-tetrahydro-4-hydroxy-1,1-dioxido-1-benzothiepin-5-yl]phenyl]amino]-5-oxopentyl]amino]-1-deoxy- (9CI) (CA INDEX NAME)

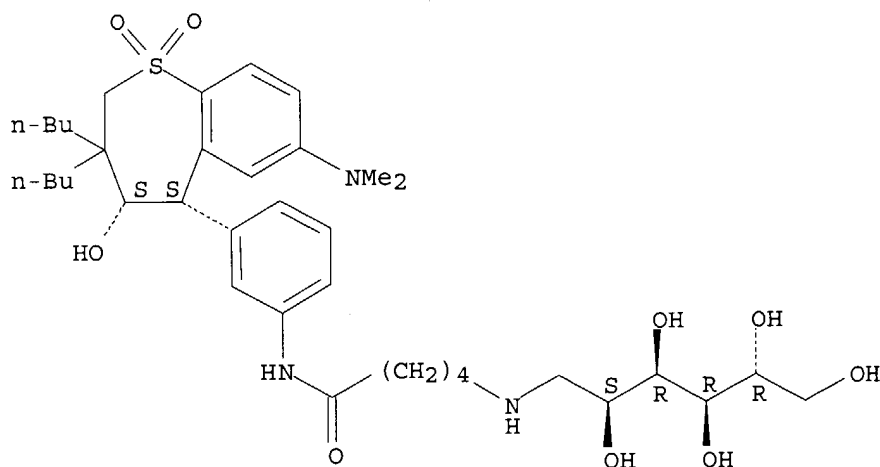
Absolute stereochemistry.



RN 252047-37-3 CAPLUS

CN D-Glucitol, 1-deoxy-1-[[5-[[3-[(4S,5S)-3,3-dibutyl-7-(dimethylamino)-2,3,4,5-tetrahydro-4-hydroxy-1,1-dioxido-1-benzothiepin-5-yl]phenyl]amino]-5-oxopentyl]amino]- (9CI) (CA INDEX NAME)

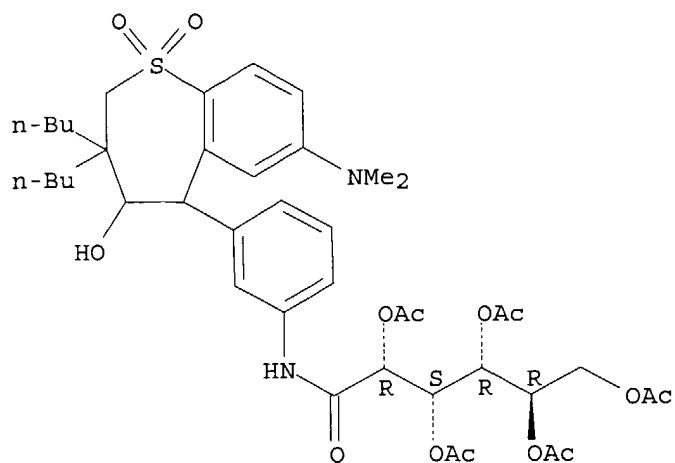
Absolute stereochemistry.



RN 252047-38-4 CAPLUS

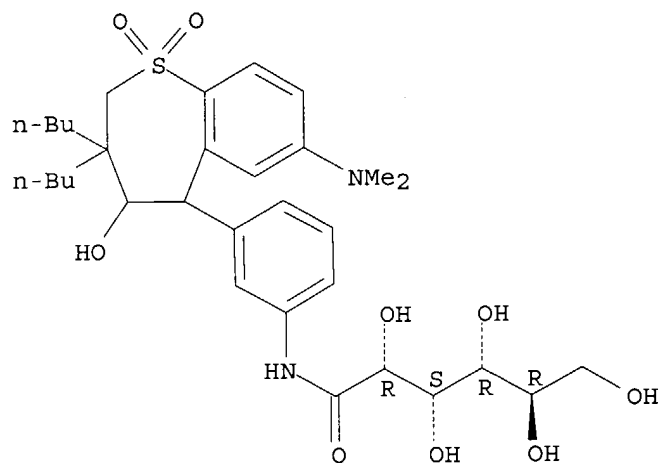
CN D-Gluconamide, N-[3-[3,3-dibutyl-7-(dimethylamino)-2,3,4,5-tetrahydro-4-hydroxy-1,1-dioxido-1-benzothiepin-5-yl]phenyl]-, 2,3,4,5,6-pentaacetate (9CI) (CA INDEX NAME)

Absolute stereochemistry.



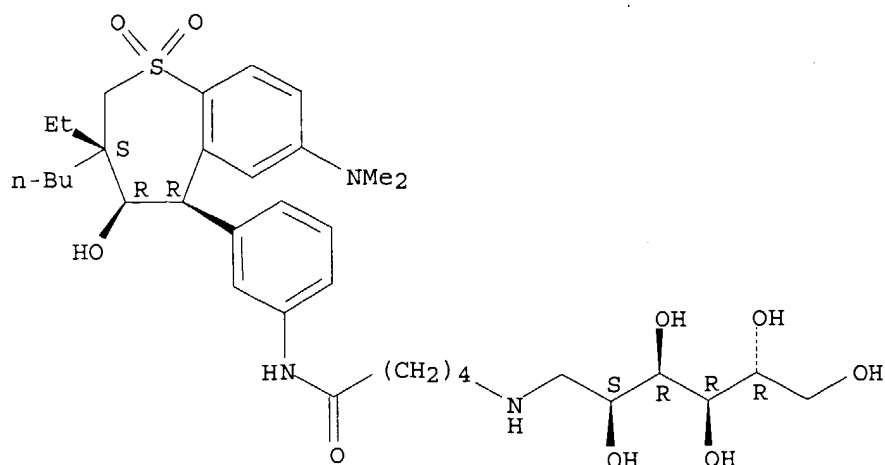
RN 252047-39-5 CAPLUS
 CN D-Gluconamide, N-[3-[3,3-dibutyl-7-(dimethylamino)-2,3,4,5-tetrahydro-4-hydroxy-1,1-dioxido-1-benzothiepin-5-yl]phenyl]- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



RN 252047-40-8 CAPLUS
 CN D-Glucitol, 1-[[5-[[3-[(3S,4R,5R)-3-butyl-7-(dimethylamino)-3-ethyl-2,3,4,5-tetrahydro-4-hydroxy-1,1-dioxido-1-benzothiepin-5-yl]phenyl]amino]-5-oxopentyl]amino]-1-deoxy- (9CI) (CA INDEX NAME)

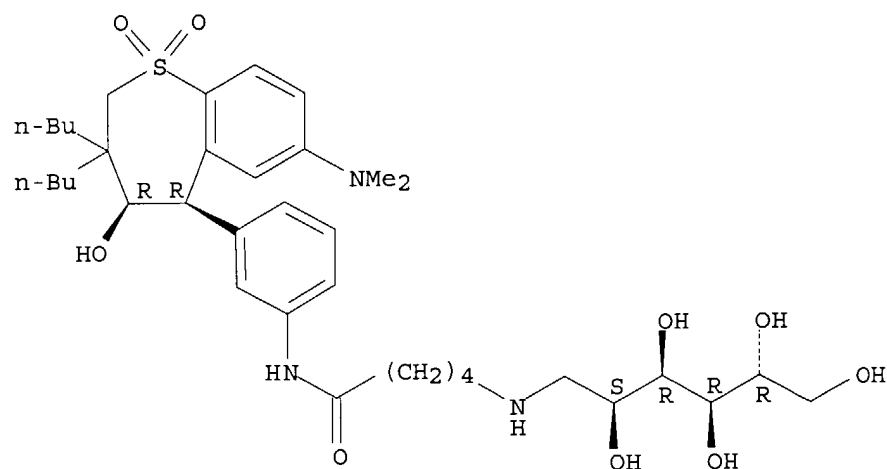
Absolute stereochemistry.



RN 252047-41-9 CAPLUS

CN D-Glucitol, 1-deoxy-1-[[5-[[3-[(4R,5R)-3,3-dibutyl-7-(dimethylamino)-2,3,4,5-tetrahydro-4-hydroxy-1,1-dioxido-1-benzothiepin-5-yl]phenyl]amino]-5-oxopentyl]amino]- (9CI) (CA INDEX NAME)

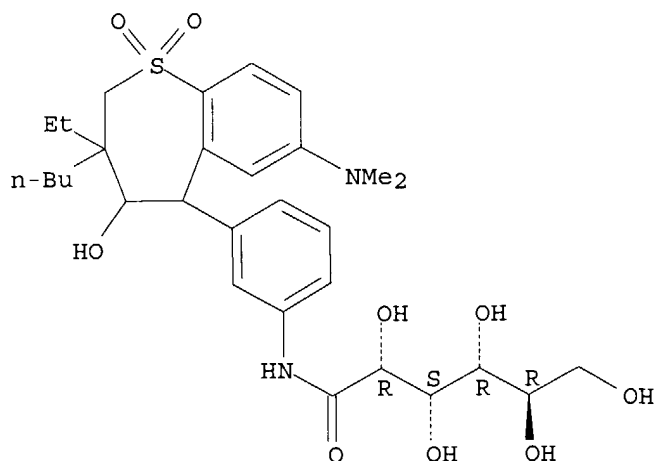
Absolute stereochemistry.



RN 252208-66-5 CAPLUS

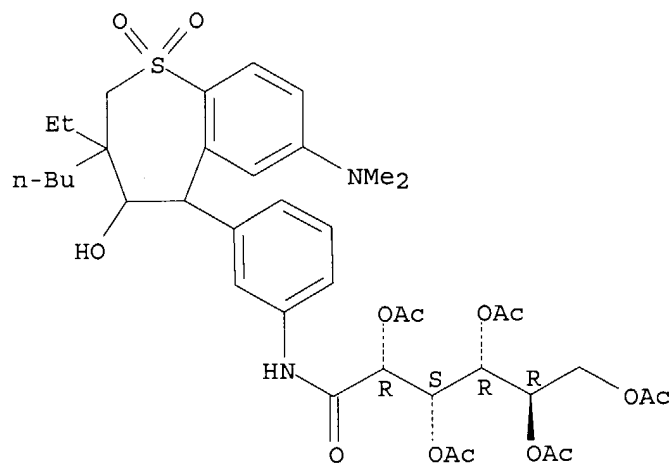
CN D-Gluconamide, N-[3-[3-butyl-7-(dimethylamino)-3-ethyl-2,3,4,5-tetrahydro-4-hydroxy-1,1-dioxido-1-benzothiepin-5-yl]phenyl]- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



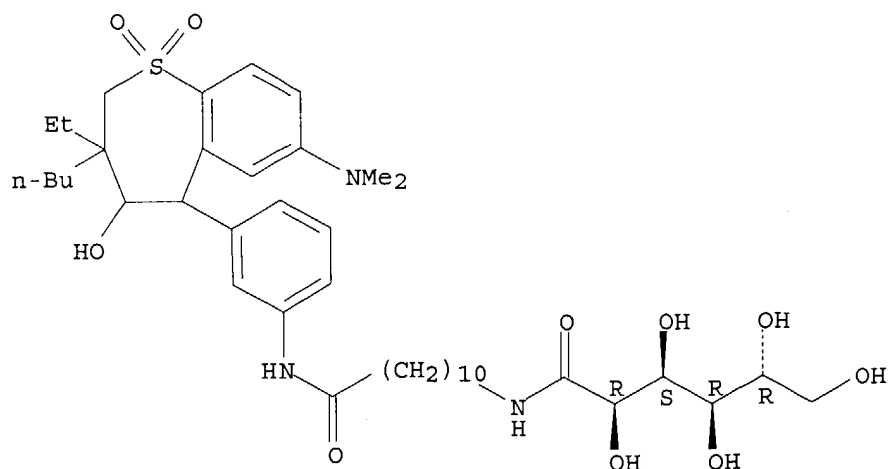
RN 252208-67-6 CAPLUS
 CN D-Gluconamide, N-[3-[3-butyl-7-(dimethylamino)-3-ethyl-2,3,4,5-tetrahydro-4-hydroxy-1,1-dioxido-1-benzothiepin-5-yl]phenyl]-, 2,3,4,5,6-pentaacetate (9CI) (CA INDEX NAME)

Absolute stereochemistry.



RN 252208-68-7 CAPLUS
 CN D-Gluconamide, N-[11-[[3-[3-butyl-7-(dimethylamino)-3-ethyl-2,3,4,5-tetrahydro-4-hydroxy-1,1-dioxido-1-benzothiepin-5-yl]phenyl]amino]-11-oxoundecyl]- (9CI) (CA INDEX NAME)

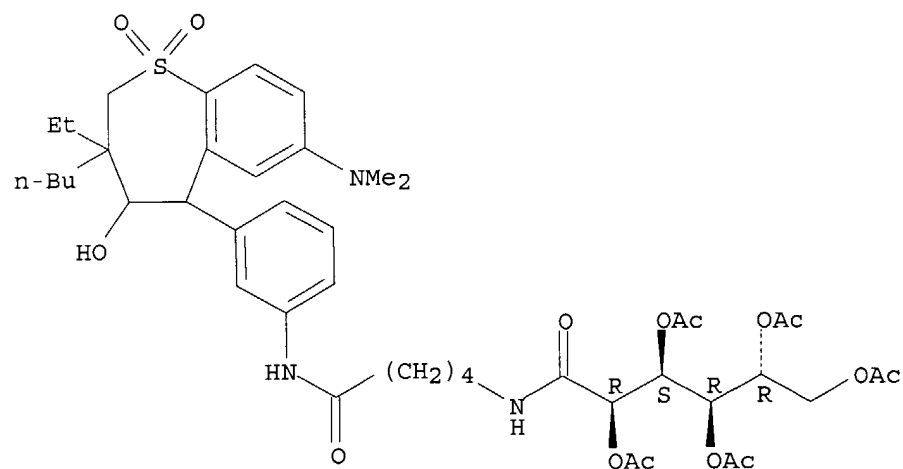
Absolute stereochemistry.



RN 252208-69-8 CAPLUS

CN D-Gluconamide, N-[5-[[3-[3-butyl-7-(dimethylamino)-3-ethyl-2,3,4,5-tetrahydro-4-hydroxy-1,1-dioxido-1-benzothiepin-5-yl]phenyl]amino]-5-oxopentyl]-, 2,3,4,5,6-pentaacetate (9CI) (CA INDEX NAME)

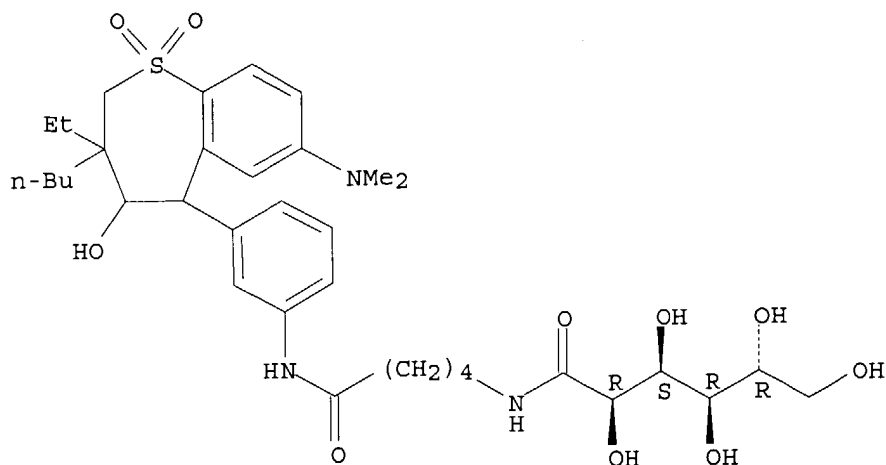
Absolute stereochemistry.



RN 252208-70-1 CAPLUS

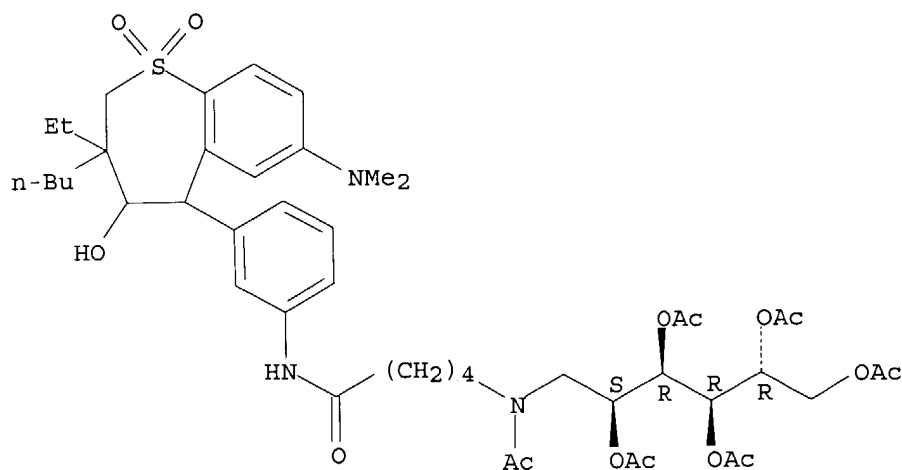
CN D-Gluconamide, N-[5-[[3-[3-butyl-7-(dimethylamino)-3-ethyl-2,3,4,5-tetrahydro-4-hydroxy-1,1-dioxido-1-benzothiepin-5-yl]phenyl]amino]-5-oxopentyl]- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



RN 252208-71-2 CAPLUS
 CN D-Glucitol, 1-[acetyl[5-[[3-[3-butyl-7-(dimethylamino)-3-ethyl-2,3,4,5-tetrahydro-4-hydroxy-1,1-dioxido-1-benzothiepin-5-yl]phenyl]amino]-5-oxopentyl]amino]-1-deoxy-, 2,3,4,5,6-pentaacetate (9CI) (CA INDEX NAME)

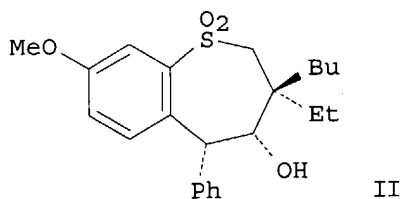
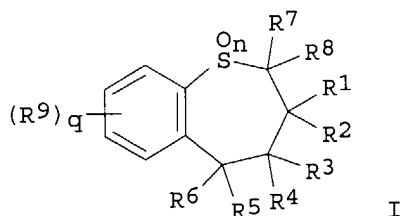
Absolute stereochemistry.



L4 ANSWER 6 OF 7 CAPLUS COPYRIGHT 2004 ACS on STN
 AN 1998:621210 CAPLUS
 DN 129:260353
 TI Preparation of ileal bile acid transport inhibiting benzothiepinines for combination therapy with HMG Co-A reductase inhibitors.
 IN Reitz, David B.; Lee, Len F.; Li, Jinglin J.; Huang, Horng-Chih; Tremont, Samuel J.; Miller, Raymond E.; Banerjee, Shyamal C.; Manning, Robert E.; Glenn, Kevin C.; Keller, Bradley T.
 PA G.D. Searle and Co., USA; et al.
 SO PCT Int. Appl., 477 pp.
 CODEN: PIXXD2
 DT Patent
 LA English
 FAN.CNT 9

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
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PI	WO 9840375	A2	19980917	WO 1998-US3792	19980310	
	WO 9840375	A3	19981203			
	W:			AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CU, CZ, DE, DK, EE, ES, FI, GB, GE, GH, GM, GW, HU, ID, IL, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, UA, UG, US, UZ, VN, YU, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, RW: GH, GM, KE, LS, MW, SD, SZ, UG, ZW, AT, BE, CH, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, ML, MR, NE, SN, TD, TG		
	AU 9864408	A1	19980929	AU 1998-64408	19980310	
	AU 730024	B2	20010222			
	EP 971744	A2	20000119	EP 1998-910075	19980310	
	R:			AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, FI		
	NZ 337830	A	20010727	NZ 1998-337830	19980310	
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	JP 2002500628	T2	20020108	JP 1998-539594	19980310	
	NO 9904390	A	19991104	NO 1999-4390	19990910	
	AU 761249	B2	20030529	AU 2000-53394	20000816	
	US 2003171426	A1	20030911	US 2002-76091	20020215	
	US 6642268	B2	20031104			
PRAI	US 1997-40660P	P	19970311			
	US 1994-305526	B2	19940913			
	US 1995-517051	B1	19950821			
	US 1996-13119P	P	19960311			
	AU 1997-23266	A3	19970311			
	US 1997-816065	B2	19970311			
	US 1997-831284	B3	19970331			
	WO 1998-US3792	W	19980310			
	US 2000-676466	A3	20000929			
OS	MARPAT 129:260353					
GI						



AB Title compds. [I; q = 1-4; n = 0-2; R1, R2 = H, (substituted) alkyl, alkenyl, alkynyl, haloalkyl, alkylaryl, alkoxy, dialkylamino, etc.; R1R2C = cycloalkylidene; R3, R4 = H, alkyl, alkenyl, alkynyl, acyloxy, aryl, heterocyclyl, heteroaryl, etc.; R3R4 = O, S, NOR11, etc.; R11 = H, alkyl, alkenyl, alkynyl, aryl, aralkyl, etc.; R5, R6 = H, alkyl, alkenyl, alkynyl, aryl, cycloalkyl, heterocyclyl, etc.; R7, R8 = H, alkyl; R9 = H, alkyl, alkenyl, alkynyl, acyloxy, aryl, aralkyl, halo, etc.], were prepared A composition comprising an ileal bile acid transport inhibitor and an HMG Co-A reductase inhibitor is claimed. Thus, title compound (II) (preparation via 2-mercapto-4-methoxybenzophenone given) at 0.2% as an ileal perfusion in guinea pigs reduced HDL cholesterol from 89 mg% to 76 mg%.

IT 197374-04-2P 197374-59-7P 197384-36-4P
213312-84-6P

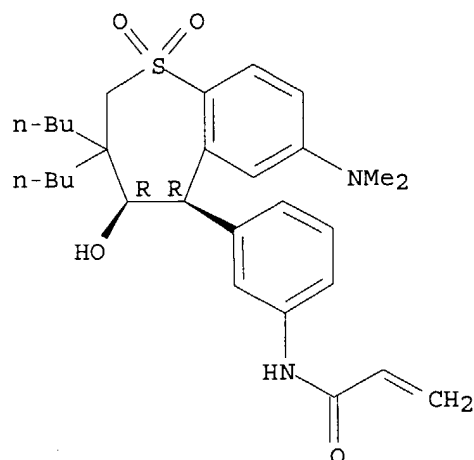
RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)

(preparation of ileal bile acid transport inhibiting benzothiepines for combination therapy with HMG Co-A reductase inhibitors)

RN 197374-04-2 CAPLUS

CN 2-Propenamide, N-[3-[(4R,5R)-3,3-dibutyl-7-(dimethylamino)-2,3,4,5-tetrahydro-4-hydroxy-1,1-dioxido-1-benzothiepin-5-yl]phenyl]-, rel- (9CI)
(CA INDEX NAME)

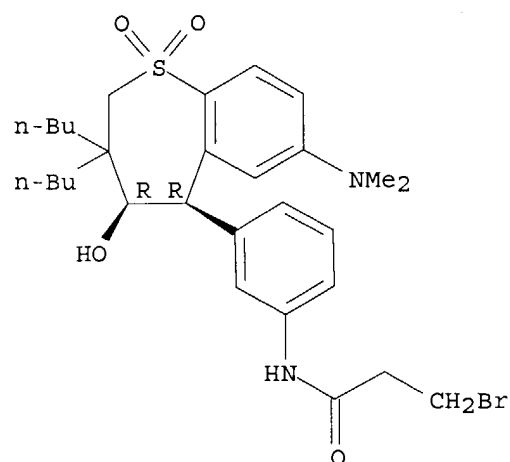
Relative stereochemistry.



RN 197374-59-7 CAPLUS

CN Propanamide, 3-bromo-N-[3-[(4R,5R)-3,3-dibutyl-7-(dimethylamino)-2,3,4,5-tetrahydro-4-hydroxy-1,1-dioxido-1-benzothiepin-5-yl]phenyl]-, rel- (9CI)
(CA INDEX NAME)

Relative stereochemistry.



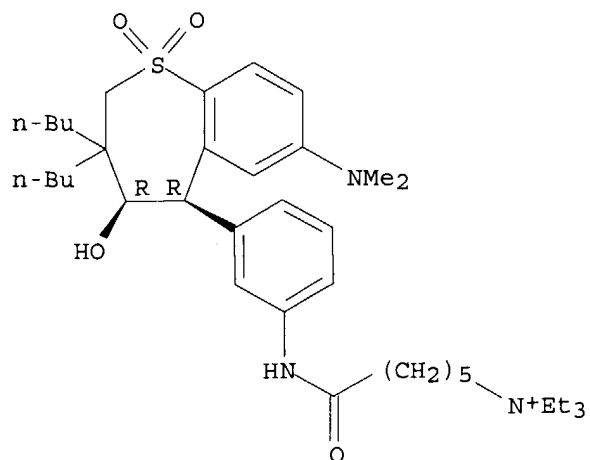
RN 197384-36-4 CAPLUS

CN 1-Hexanaminium, 6-[[3-[(4R,5R)-3,3-dibutyl-7-(dimethylamino)-2,3,4,5-tetrahydro-4-hydroxy-1,1-dioxido-1-benzothiepin-5-yl]phenyl]amino]-N,N,N-triethyl-6-oxo-, rel-, salt with trifluoroacetic acid (1:1) (9CI) (CA INDEX NAME)

CM 1

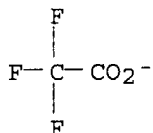
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CMF C38 H62 N3 O4 S

Relative stereochemistry.



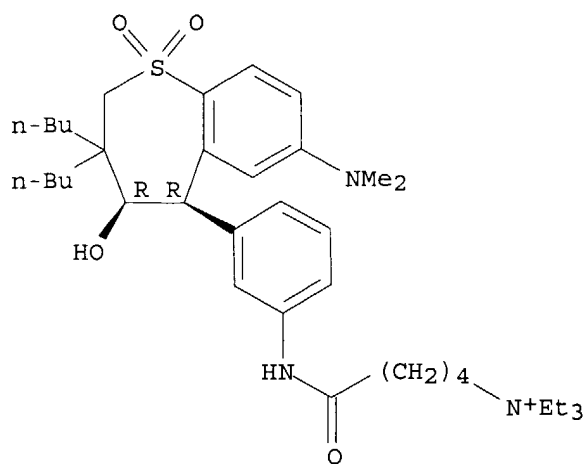
CM 2

CRN 14477-72-6
CMF C2 F3 O2



RN 213312-84-6 CAPLUS
CN 1-Pentanaminium, 5-[[3-[(4R,5R)-3,3-dibutyl-7-(dimethylamino)-2,3,4,5-tetrahydro-4-hydroxy-1,1-dioxido-1-benzothiepin-5-yl]phenyl]amino]-N,N,N-triethyl-5-oxo-, iodide, rel- (9CI) (CA INDEX NAME)

Relative stereochemistry.



IT 213312-74-4P

RL: RCT (Reactant); SPN (Synthetic preparation); **PREP**

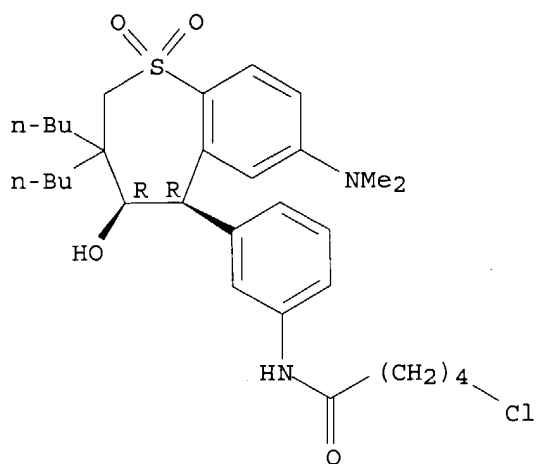
(**Preparation**); RACT (Reactant or reagent)

(preparation of ileal bile acid transport inhibiting benzothiepins for combination therapy with HMG Co-A reductase inhibitors)

RN 213312-74-4 CAPLUS

CN Pentanamide, 5-chloro-N-[3-[(4R,5R)-3,3-dibutyl-7-(dimethylamino)-2,3,4,5-tetrahydro-4-hydroxy-1,1-dioxido-1-benzothiepin-5-yl]phenyl]-, rel- (9CI)
(CA INDEX NAME)

Relative stereochemistry.



L4 ANSWER 7 OF 7 CAPLUS COPYRIGHT 2004 ACS on STN

AN 1997:623163 CAPLUS

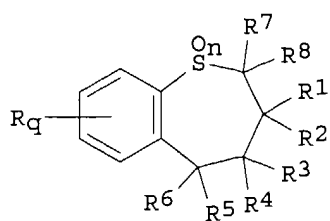
DN 127:307312

TI Novel benzothiepins having activity as inhibitors of ileal bile acid transport and taurocholate uptake

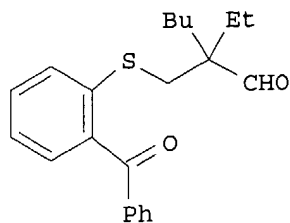
IN Reitz, David B.; Lee, Len F.; Li, Jinglin J.; Huang, Horng-Chih; Tremont, Samuel J.; Miller, Raymond E.; Banerjee, Shyamal C.

PA G.D. Searle and Co., USA; Reitz, David B.; Lee, Len F.; Li, Jinglin J.;
Huang, Horng-Chih; Tremont, Samuel J.; Miller, Raymond E.; Banerjee,
Shyamal C.
SO PCT Int. Appl., 406 pp.
CODEN: PIXXD2
DT Patent
LA English
FAN.CNT 9

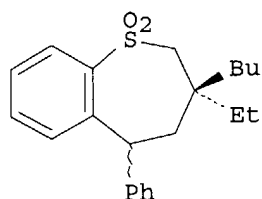
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PI	WO 9733882	A1	19970918	WO 1997-US4076	19970311
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	LK, LR, LS, LT, LU, LV, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT,				
	RO, RU, SD, SE, SG, SI, SK, TJ, TM, TR, TT, UA, UG, US, UZ, VN,				
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	RW: GH, KE, LS, MW, SD, SZ, UG, AT, BE, CH, DE, DK, ES, FI, FR, GB,				
	GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN,				
	ML, MR, NE, SN, TD, TG				
	CA 2248586	AA	19970918	CA 1997-2248586	19970311
	AU 9723266	A1	19971001	AU 1997-23266	19970311
	AU 723123	B2	20000817		
	EP 888333	A1	19990107	EP 1997-915976	19970311
	R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, PT, IE, FI				
	CN 1221414	A	19990630	CN 1997-194503	19970311
	CN 1110494	B	20030604		
	BR 9708042	A	19990727	BR 1997-8042	19970311
	JP 2001526627	T2	20011218	JP 1997-532875	19970311
	RU 2202549	C2	20030420	RU 1998-118643	19970311
	EP 1440972	A1	20040728	EP 2004-10088	19970311
	R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, PT, IE, FI				
	NO 9804146	A	19981030	NO 1998-4146	19980909
	AU 761249	B2	20030529	AU 2000-53394	20000816
	US 2003171426	A1	20030911	US 2002-76091	20020215
	US 6642268	B2	20031104		
PRAI	US 1996-13119P	P	19960311		
	US 1997-816065	A	19970311		
	US 1994-305526	B2	19940913		
	US 1995-517051	B1	19950821		
	AU 1997-23266	A3	19970311		
	EP 1997-915976	A3	19970311		
	US 1997-40660P	P	19970311		
	WO 1997-US4076	W	19970311		
	US 1997-831284	B3	19970331		
	US 2000-676466	A3	20000929		
OS	MARPAT 127:307312				
GI					



I



II



III

AB Novel benzothiepine I [$q = 1-4$; $n = 0-2$; $R = H$, halo, (un)substituted alk(en/yn)yl, acyloxy, aryl, heterocyclyl, OH or NH₂ or SH or derivs., etc.; $R_1, R_2 = H$, (un)substituted and/or heteroatom-replaced alk(en/yn)yl, cycloalkyl, aryl, alkoxy, alkylthio, dialkylamino; or $CR_1R_2 = C_3-10$ cycloalkylidene; $R_3, R_4 = H$, alk(en/yn)yl, acyloxy, aryl, heterocyclyl, OH or NH₂ or SH or derivs.; or $R_3R_4 = O, S, NH, NOH, NNH_2, CH_2$ or derivs.; $R_5, R_6 = H$, (un)substituted alk(en/yn)yl, cycloalkyl, aryl, heterocyclyl, OH or SH or derivs.; $R_7, R_8 = H$, alkyl] and their derivs. and analogs are provided. Also provided are pharmaceutical compns. containing I and methods of their medical use, particularly in the prophylaxis and treatment of hyperlipidemic conditions, such as those associated with atherosclerosis or hypercholesterolemia. For instance, the keto aldehyde II was cyclized by Zn/TiCl₃, and the resultant cycloolefin was oxidized and epoxidized by m-ClC₆H₄C(O)OOH and hydrogenated over Pd/C to give epimeric title compds. α - and β -III in 25% and 13% yield, plus addnl. compds. In a test for inhibition of IBAT-mediated uptake of [¹⁴C]-taurocholate in H14 cells in vitro, β -III had an IC₅₀ of 5 μ M.

IT 197373-52-7P

RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); RCT (Reactant); SPN (Synthetic preparation);

THU (Therapeutic use); BIOL (Biological study); PREP

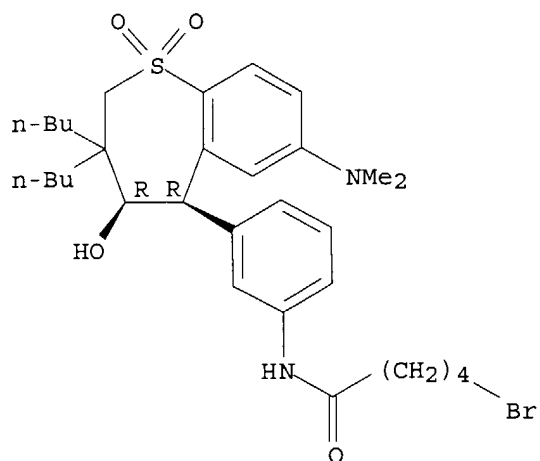
(Preparation); RACT (Reactant or reagent); USES (Uses)

(preparation of benzothiepine as antihyperlipidemics)

RN 197373-52-7 CAPLUS

CN Pentanamide, 5-bromo-N-[3-[(4R,5R)-3,3-dibutyl-7-(dimethylamino)-2,3,4,5-tetrahydro-4-hydroxy-1,1-dioxido-1-benzothiepin-5-yl]phenyl]-, rel- (9CI)
(CA INDEX NAME)

Relative stereochemistry.



IT 197373-54-9P 197374-04-2P 197374-59-7P

197384-36-4P

RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); SPN (Synthetic preparation); **THU (Therapeutic use)**; BIOL (Biological study); **PREP (Preparation)**; USES (Uses)

(preparation of benzothiepine as antihyperlipidemics)

RN 197373-54-9 CAPLUS

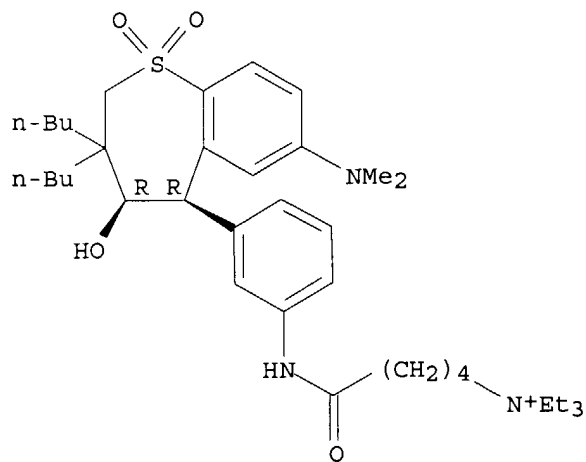
CN 1-Pentanaminium, 5-[[3-[(4R,5R)-3,3-dibutyl-7-(dimethylamino)-2,3,4,5-tetrahydro-4-hydroxy-1,1-dioxido-1-benzothiepin-5-yl]phenyl]amino]-N,N,N-triethyl-5-oxo-, rel-, salt with trifluoroacetic acid (1:1) (9CI) (CA INDEX NAME)

CM 1

CRN 197373-53-8

CMF C37 H60 N3 O4 S

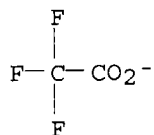
Relative stereochemistry.



CM 2

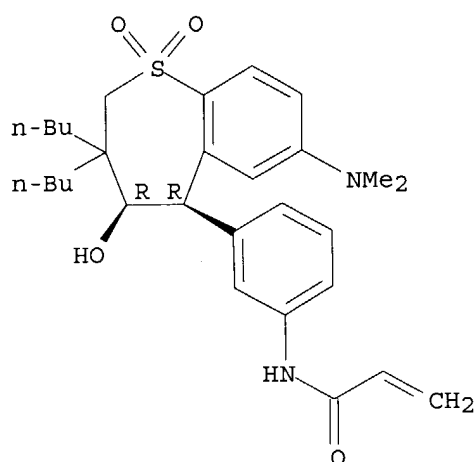
CRN 14477-72-6

CMF C2 F3 O2



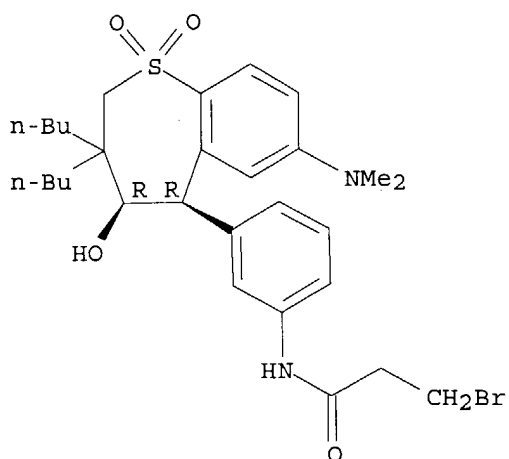
RN 197374-04-2 CAPLUS
CN 2-Propenamide, N-[3-[(4R,5R)-3,3-dibutyl-7-(dimethylamino)-2,3,4,5-tetrahydro-4-hydroxy-1,1-dioxido-1-benzothiepin-5-yl]phenyl]-, rel- (9CI)
(CA INDEX NAME)

Relative stereochemistry.



RN 197374-59-7 CAPLUS
CN Propanamide, 3-bromo-N-[3-[(4R,5R)-3,3-dibutyl-7-(dimethylamino)-2,3,4,5-tetrahydro-4-hydroxy-1,1-dioxido-1-benzothiepin-5-yl]phenyl]-, rel- (9CI)
(CA INDEX NAME)

Relative stereochemistry.



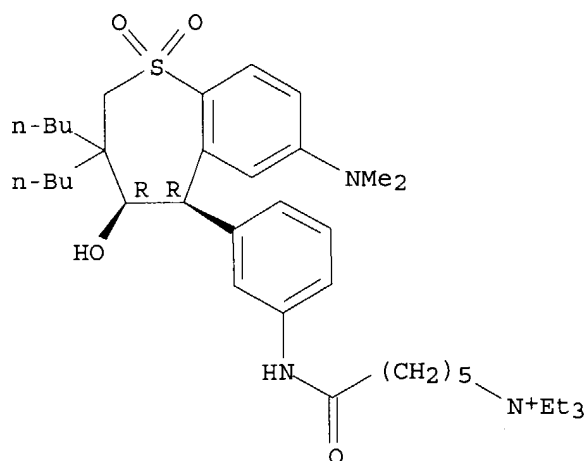
RN 197384-36-4 CAPLUS
 CN 1-Hexanaminium, 6-[[3-[(4R,5R)-3,3-dibutyl-7-(dimethylamino)-2,3,4,5-tetrahydro-4-hydroxy-1,1-dioxido-1-benzothiepin-5-yl]phenyl]amino]-N,N,N-triethyl-6-oxo-, rel-, salt with trifluoroacetic acid (1:1) (9CI) (CA INDEX NAME)

CM 1

CRN 197384-35-3

CMF C38 H62 N3 O4 S

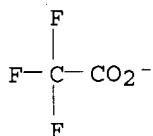
Relative stereochemistry.



CM 2

CRN 14477-72-6

CMF C2 F3 O2



=> dis hist

(FILE 'HOME' ENTERED AT 16:29:25 ON 25 AUG 2004)

FILE 'REGISTRY' ENTERED AT 16:30:00 ON 25 AUG 2004

L1 STRUCTURE UPLOADED

L2 3 S L1 SSS SAM

L3 72 S L1 SSS FULL

FILE 'CAPLUS' ENTERED AT 16:31:12 ON 25 AUG 2004

L4 7 S L3/PREP AND L3/THU

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